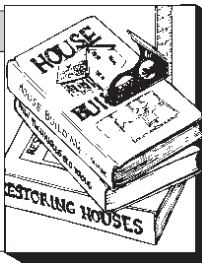


HVAC Contracting

HVAC Contracting, by Robert and William Dries. Carlsbad, Calif.: Craftsman Book Co., 1986. 251 pages \$24.50 paperback.

by Paul Hanke



There comes a time when many people in the building trades ask themselves: "Why am I working for someone else? Should I go out on my own?" If you're in HVAC, Robert and William Dries have written a book to help you answer those questions.

HVAC Contracting covers tools, installation, theory, design, and business for the budding entrepreneur. Some areas get better coverage than others, but the overview is good.

After a short preface, the authors begin with an introduction to tools, equipment, and shop requirements. They assume that the reader is already familiar with the first two subjects, but they do offer specific comments on testing equipment, such as anemometers, manometers, and ohmmeters. Blower doors (used to field test air-infiltration rates) are not mentioned. The pros and cons of setting up a fabrication shop are outlined, but actual fabrication techniques are excluded.

The next chapter tackles sales, focusing on comfort and the pros and cons of hydronic, electric, forced-air, solar, and heat-pump systems. The only psychrometric chart (used to determine comfort conditions) appears, unfortunately, in a much later chapter, with no cross reference. Drawings and specs are hard to locate as well. There is, on the other hand, an interesting case study of how one person successfully entered the solar market.

Chapters 4 through 9 cover the

planning and design of warm-air, hot-water, electric, and light-commercial systems. This is the book's strong suit, and probably is due to the fact that one of the authors is an engineer.

You'll find good, basic information on calculating heating-and-cooling loads, sizing ducts and fans, and balancing. Unfortunately, the chapter on ventilation virtually ignores the rising technology of air exchangers. Another failure is the authors' failure to consistently define terms when they present a formula. However, many data charts, manufacturers' cut sheets, sample forms, and worked examples supplement the text.

The last two chapters offer a pretty good overview of going into business, and include market-research sources, setting gross-profit goals, estimating operating and start-up costs, preparing a personal balance sheet, and seeking loans and capitalization.

The authors include rules of thumb for determining job-cost ratios, overhead and profit, and bidding pitfalls. The discussion of record keeping, change orders, and job-cost documentation is less successful. These final chapters contain many helpful comments on little details that you might—to your regret—overlook, but you'll probably want to supplement them with other books or seminars.

In short, *HVAC Contracting* is strong on system design, fair on establishing a business, and ignores nuts-and-bolts installation. ■

prise!) carpenters—solidly middle class, but far from wealthy. Along with this, Lewis notes the feast-or-famine nature of construction, and the periodic lack of work facing architects, whether employees or principals of their own firms. The list of "downers" continues: legal and financial risks, public criticism and, the worst, disillusionment.

Having laid out the pros and cons, Lewis outlines the standard course of architectural education, including

architect. He introduces the reader to the actual process by which buildings get built, the role of engineers and other consultants, how architects work (from sketches and models to computers and construction supervision) and how they *get* work.

Clients—from small households to developers, institutions, and government agencies—are presented with their unique characteristics and foibles.

Finally, architects themselves are

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choosing a school, coursework (design studio, history, technology, and management), degrees, apprenticeship, and licensing.

Along the way, he touches on the shock of the first-year work load, architectural jargon and values (often conflicting), and the sometimes ego-destroying process of jury reviews of student work. The author also introduces current schools of thought, including historicism, urbanism, ecology, and symbolism—what do buildings *mean*?

Having laid out the row to be hoed, Lewis focuses on being an

described in their many guises, including the "highborn," "artist," "fantasizer," "plodder," "poet-philosopher," and "Renaissance person." Many of these will be immediately recognizable to anyone familiar with the profession.

Architect? offers a fair view of the sometimes esoteric aspects of the profession. I recently gave a copy to a young college grad in the hope that it will either encourage or discourage her dream of going on to study architecture. If you know someone in that position, *Architect?* will make a good gift. ■

Airtight-Drywall Approach

The Airtight House, by James Lischkoff and Joseph Lstiburek. Ames, Iowa: Iowa State University Research Foundation. 84 pages, \$14.95 paperback.

Finally, there is an alternative to taking a costly seminar on the airtight-drywall approach. (See *NEB*, January 1985.) The Canadian developers of the system have made their

manual available to U.S. readers with English—not metric—units. For anyone interested in the subject, this is the ultimate source—and reasonably priced, too. ■

Architect? — A Candid Guide

Architect? A Candid Guide to the Profession, by Roger K. Lewis. Cambridge, Mass.: MIT Press, 1986. 262 pages, \$9.95 paperback.

"I know," says architect Roger Lewis in the introduction to *Architect?* "of no single book that honestly informs prospective architects and architectural students of what to expect [from their future training and profession.]"

As a result, Lewis compiled this informative and subjective look at architects for high-school and college students, guidance counselors, and clients who want to know more about this sometimes mysterious breed.

Beyond this primary audience, the book will be appreciated by architects themselves, who—for better or worse—will identify with Lewis's description of the joys and pitfalls of their profession, and appreciate his sketches of the personality types that one encounters in architecture schools and firms.

"Characterizing the experience of architecture as bittersweet," says Lewis, "is fitting." This is Lewis's

theme as he leads the reader through an introduction to an architect's training and practice. The author provides elaboration, commentary, and anecdotes as, throughout the book, he tries to offer a candid and balanced view of the challenges, rewards, and obstacles facing today's architects.

For those embarking on the profession, or those who learned about architects through fiction or television, Lewis sketches the basics of professional practice and skills required in the real world.

Among the rewards of becoming an architect, Lewis lists creativity, the freedom to "do your own thing," social status, the potential to help others, and even the possibility of fame (achieved, admittedly, by only a few).

On the debit side is the prospect of relatively low pay. Architects generally make about as much as teachers, mechanics, nurses, or (sur-

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Hardwood Plywood and Veneer: The 1986 edition of *Where to Buy Hardwood Plywood and Veneer* is available from the Hardwood Plywood Manufacturers Association. Send \$5 to HPMA, P.O. Box 2789, Reston, VA 22090 for the 41-page directory.

Ceramic Tile: The 1987 *Handbook for Ceramic Tile Installation* is "a guide to assist in clarifying and standardizing installation specifications for ceramic tile." Published by the Tile Council of America, Inc., you can order it for \$1 per copy from the Tile Council of America, P.O. Box 326, Princeton, NJ 08542.

Gypsum Board: A 15-page technical manual on finishing gypsum board is available from the Association of Wall and Ceiling Industries-International (AWCI). The manual contains instructions for finishing gypsum board, and lists tools and materials.

AWCI also offers technical manuals on prefab exterior wall assemblies, exterior insulating finish systems, fire resistance, and veneer plaster. *Finishing Gypsum Board* costs \$6 (for nonmembers). Write AWCI, 25 K St., NE, Suite 300, Washington, DC 20002, 202/783-2924.

Wood: The National Forest Products Association (NFPA) has technical publications on a variety of topics.

From its Wood Construction Data series: *Manual for House Framing*—Wood Construction Data No. 1, 40 pages, \$3. *Design of Wood Formwork for Concrete Structures*—WCD No. 3, 20 pages, \$2. *Plank-and-Beam Framing for Residential Construction*—WCD No. 4, 28 pages, \$3. *Heavy Timber Construction Details*—WCD No. 5, 28 pages, \$2. *Design of Wood Structures for Permanence*—WCD No. 6, 16 pages, \$3.

From the Construction Cost Saver series: *Cost Saver No. 3: Use of Full Span Capability of Lumber Joists*, 6 pages, \$3.00. CS No. 4: *Exterior Wall Framing*, 6 pages, \$3.00.

These publications can be ordered from NFPA, 1619 Massachusetts Ave., NW, Washington, DC 20036, Attn: Publications Dept.

Panel Systems: The American Plywood Association's *Design/Construction Guide: Residential & Commercial*, Form E30, contains "complete application recommendations, including fastener schedules, for APA panel floor, wall, and roof systems." Write to the APA, P.O. Box 11700, Tacoma, WA 98411, for a free single copy. ■

—NEB staff