BY JAY ROSE

CONFESSIONS OF AN AUTODIDACT

TEACH YOURSELF TO CREATE BETTER TRACKS.

What's on *your* shelf? There's nothing obsolete about books as a learning and reference medium. Here are some of my favorites. (Yes, I wrote two of them. But I also recommend the others.)

I got a call from my insurance agent. Not about coverage—could I talk to her high school son? He loves sound, and is always playing with audio on his computer and editing new tracks for TV shows. But he doesn't know whether to go to film or engineering school; get a liberal arts degree or save the money and look for an internship.

Maybe I'll have a better idea after I hear the kid's work, but for now, all I could say on schools is, "They're all good, and they all have drawbacks." This isn't a knock on higher education. Lots of my friends teach at film and engineering schools, or media courses at major universities. But school can be expensive, and some people don't flourish in that kind of setting. Fortunately, you can learn a lot—even about something as technical as film and video sound—without ever setting foot in a classroom.

I should know. My last serious math and physics classes were in high school. But I've built complicated studios and kept them running, programmed some well-respected pieces of digital audio equipment, and written books used in engineering schools and film classes. My secret—which I hereby share with my insurance agent's son and you—requires just four things: a few books, a Web browser, a little luck and a lot of loving what you do.

The luck part involves finding mentors and opportunities to practice your craft. These are important, and a good college can provide them both. It can also give you lists of books and help you find Web resources. But if you want to be any good, you have to keep learning throughout your career—whether you've taken college courses or not. So let me list some non-school resources that are part of my own continuing audio and film education. Many are free, and all are bargains. (If I miss one of your favorites, drop a note and I'll spread the word.)

BIT BY BIT

The Web is a wonderful thing. Google and Wikipedia answer almost any question you throw at them, sometimes even with correct and unbiased information. After the skepticism and cross-checking that a good Web search requires, they're still great resources. So are Wikiversity.org (free introductory courses on a bunch of subjects) and Wikibooks.org (exactly what you'd expect). In fact, you can spend some profitable hours just poking around the world of user-contributed-and-edited content at Wikimedia.org. The Open Source movement, similar to the Wikis, does the same thing with free software. Some of its programs are great production tools, like the Audacity multitrack audio editor I've mentioned before. Some are just fun to play with, which can also be educational. Many include documentation. Open Source's home is sourceforge.net.

Manufacturers, industry organizations, magazines and individuals like me also sponsor sites where you can learn about audio and electronics. Among the best, in alphabetical order:

Cinema Audio Society (www.cinemaaudiosociety.org)
An organization primarily of production sound mixers, with an informative online journal, an active discussion board, and links to other film sound technical societies.

Digital Playroom (www.dplay.com)
My Web site, which has a large tutorial section and index to my columns in *DV*, as well as some streaming audio humor about our industry.

ePanorama.net
This is the current home of engineer Tomi Engdahl's Web site, one of the

most valuable and relatively undiscovered technical areas on the Web. It includes an immense database of contributed articles, circuit diagrams, and tutorials about audio and electronics.

Equipment Emporium (www.equipmentemporium.com)
A sales and rental house, with lots of useful articles on soundtrack production, and downloadable manuals for some common gear.

Internet Movie Database (www.imdb.com)
Cast, crew, and occasional trivia for just about every movie ever made—Hollywood features, made-for-TV, low-budget indies, the works.

Museum of Broadcast Technology (www.wmbt.org)
The growing site of a new brick-and-mortar museum in Rhode Island. Articles and photos about how we got where we are today.

Quantel Limited (www.quantel.com)
This film and video equipment manufacturer has assembled a large downloadable library on digital audio and video, workflows, and interchange systems. The site also offers a free, downloadable 150-page guidebook to digital broadcasting.

Rane Corporation (www.rane.com)
Rane makes equipment for commercial sound installations. But its site includes valuable information on all forms of audio, including a library of downloadable technical booklets and a complete audio dictionary.

Rycote's Microphone Database (www.microphone-data.com)
Technical specifications for thousands of microphones, sponsored by a maker of professional shockmounts and windscreens. Rycote doesn't do its own measurements, but if a mic manufacturer publishes any, you'll find them neatly organized here—complete with polar patterns and response curves when available.

Video University (www.videouniversity.com)
This site has a few basic articles on audio, plus a lot of information about the technology and business of video.

A few of these sites require free registration, but I've never gotten spam from any of them. Many also include links to other sites, so you could spend a few lifetimes exploring and learning. Of course the Web doesn't stay still, so some of these references might disappear before you get to them.

TEXT ME

Computers also made possible an explosion of up-to-date books by working experts—people who'd never consider writing in the days of manual typewriters and stodgy publishers. Some can be valuable for beginners and experienced pros alike. Here are a few I've learned from. Most of these are available from standard sources; links for all of them—with discounted prices, where I could find them—are on the *DV* Readers' page of my site (www.dplay.com/dv).

ARRL Handbook. The American Radio Relay League updates this 1,200-page encyclopedia every year, with a CD-ROM containing articles on just about every aspect of audio and radio electronics. It's unabashedly technical, but deep and reliable—and you don't need the latest version to learn a lot.

Audio Postproduction (Jay Rose). OK, I wrote it, but it's used at a lot of schools worldwide, including Russian and German versions. Downloadable samples, critical comments and more are all at my Web site.

Dialog Editing for Motion Pictures (John Purcell). Video and film sound evolved with very different editing methods; each has its specific strengths. Film style is much better for telling long stories shot in short takes. Video style can be more powerful for documentaries and pieces using voice-over, and it's faster. While these styles evolved because the technologies were different, modern audio software makes both available all the time. My books come from a video-centric point of view, while Purcell's are from film; we each explain tricks and techniques the other never covers. I recommend reading both. Besides, Purcell is as good and clear a writer as I try to be.

Practical Art of Motion Picture Sound (David Lewis Yewdall). The differences between film and video workflows affect the entire process, from preproduction through mix. Yewdall covers the entire film sound process. This wide-ranging topic means he can't get as deeply into specific techniques as my books or Purcell's, but you can learn a lot from his extensive experiences in the feature world. If you want to learn how things are done when there's a Hollywood budget, this is the book to read.

Producing Great Sound (me again). See listing under *Audio Postproduction*; details also at my Web site.

Sound for Film and Television (Tomlinson Holman). A bit more for the technically minded than Yewdall's book, and definitely oriented toward feature film workflows, despite the title. This makes sense, since Holman is the "TH" in THX, as well as a respected sound designer and teacher in Hollywood.

Total Recording (David Moulton). This thick book, written by a Grammy-nominated engineer and audio educator, explains how to get the best results from just about every gadget and person in a music studio. A lot applies to film and video as well. If you've got the time and commitment, you can also benefit from the listening exercises in Moulton's separate *Golden Ears* audio training CDs.

A disclaimer: Purcell, Yewdall, Holman and I are all published by Focal Press, but I have no financial interest in any titles other than my own. In fact, I'll even point you to a great Web resource for people who'd rather borrow books than pay for them: www.worldcatlibraries.org. Enter a title, author, and your ZIP code, and this meta-catalog will locate the library copies closest to your home. DV

Jay Rose, C.A.S., is a nationally respected sound designer who readily admits he's still learning. Reach him at www.dplay.com.