

► Sound FX

Reviewed by Ed Simon

More money is spent on toothpaste each year than on professional audio equipment. That makes us a fairly small community. So it is a bit unusual for me to get a new book and read two dozen or so names in the acknowledgment section and personally know only one of them. OK, so some of the names are family and the book is on the edge of the work I do, but, still, only one common source is rare.

Alexander U. Case has written a book titled *Sound FX, Unlocking the creative potential of recording studio effects*—a clever title, considering that there are so many “complete” recording books that picking one area where most people just past novice would want to improve their skills will help sell books. The book contains much more than the title implies.

COVERING THE TOPIC

The author has an excellent grasp of what audio starts from, where it can go, and what he wants to do with it. In many ways, this book shares some important characteristics with the film cartoons of the late 40s. It can be enjoyed as a basic work, but those with more insight will be amazed at how much more there is.

Case approaches his presentation a bit differently than I would expect in an introductory book. He first presents the cold, hard equations, even if it is the type of math that I would not expect to see until after at least one or two calculus courses. Then he presents the explanation in language and images that allow the beginner to grasp the concept.

The book also assumes that the reader has knowledge of how things really work

and so skips what many basic books would address. For example, he doesn't mention microphones until chapter 13. He assumes that once you know how air is modulated in chapter one, you can figure out how this gets into the signal flow of chapter two.

This undoubtedly is because Case is really teaching this subject. He understands what the student needs to add to his/her knowledge to do useful work.



The first section of the book includes three chapters about the basics. The first—how air is transmitted by sound waves—is represented graphically and mathematically, and explains why these principles concern us musically. The author then details how this is handled in the mixer and multi-track recording process. Concluding the introduction section is a chapter packed with information on how we perceive these sounds and can use this to advantage. This is the best single

explanation I have ever seen of this material!

The next section of the book is on what he terms amplitude effects. The presentation in the fourth chapter on distortion is the start of this title material. The chapter is too short from an audiophile's point of view, but does offer insight into the recording artist's deliberate use of distortion for musical effect and some of the problems to try to avoid. A nice feature here and throughout the book is the listing of specific musical selections to illustrate the written examples.

The next three chapters cover equalization, compression and limiting, then expansion and gating. Although presented from a recordist's point of view, these are a quite complete and understandable explanation of the technologies, the actual devices, the limitations of these processes, and how to use them for both recording and, to a lesser extent, for live work. Specific examples given of where and how to use the processes are clearly based upon the author's actual experience. This gives a much more hands-on feel to the book.

ENTERING THE STUDIO

Chapter eight on volume controls is probably the single most important chapter in the book. You would have expected the explanation of what a volume control is and how to use it to be much earlier in the presentation. It begins with an explanation of the types of controls and how they work. This material contains a brief explanation of how to mix music in a contemporary pop style. This chapter makes very clear to the journeyman the differ-

ence between older styles of recording, live recording, and current studio practice.

The next section deals with time-based effects. The three chapters cover delay, pitch shift, and reverb. A musical theory approach is taken to many of the explanations of how to use these processes. There are some charts relating tempo to time in chapter nine that will undoubtedly be a constant reference for some of the folks who work a mixing console for fun or profit.

Chapter 11 on reverb is aimed squarely at recording technology, devices, and techniques. But it will give most readers an insight into what the still emerging digital technology will do to live performances and the performing space.

Section four, which covers the basics of mixing, is where this work really becomes a more complete studio book. It explains very well why there are both pre-fader and post-fader sends on mixing boards. The basics of where to assign which signal and how to get started are reasonably, but briefly, presented.

Case then moves on to two special chapters, the snare drum and the piano. The discussion of control and imaging here should be of interest, or perhaps controversy, to most readers. The specifics should guide many of the readers in the studio.

The final chapter is on mixing down the multi track recording in basic terms and with forms of automation. Today this is the conclusion of the studio recording process. In the days of vinyl there would have been a chapter on actually getting the sound to fit into the groove. It is assumed the digital files from the studio can be transferred unmodified to the distribution media with the current technology.

This book, although clearly aimed at current pop music recording techniques, offers many excellent explanations of basic to advanced audio theory and technique. Much is applicable to live sound, and the basics should help many audiophiles better understand why they hear the things they do.

Case does not cover many of the other recording issues in this book. There is very little on microphone technique. The actual selection of the gear and its interconnection is reasonably avoided, because that would limit the life of the book. So in one sense the title is correct; it is not intended

to be a complete recording guide. It does contain more than enough information that this book, with the use of the references, could be the core of an excellent modern audio education.

The one shortfall that bothered me is the lack of attribution for some of the data presented. As an example, figure 3.1 is a very valuable chart of audio thresholds related to levels and frequency, but it bears no reference as to where this information came from.

This book hits its target reader dead on, but goes way beyond that. At \$39.95, this book is a very low-cost way to get a seat in the first-class compartment on the audio clue train. *ax*