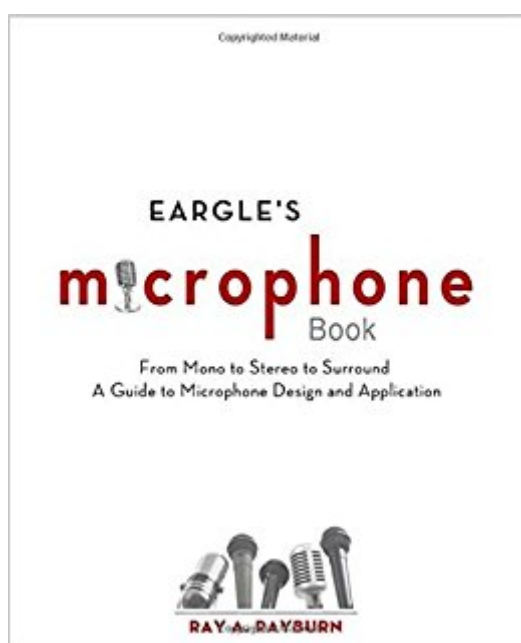# Eargle's The Microphone Book: From Mono To Stereo To Surround - A Guide To Microphone Design And Application (Audio Engineering Society Presents)

Synopsis

Eargle's Microphone Book is the only guide you will ever need for the latest in microphone technology, application and technique. This new edition features more on microphone arrays and wireless microphones, new material on digital models; the latest developments in surround; expanded advice on studio set up, recording and mic selection. Ray A. Rayburn provides detailed analysis of the different types of microphones available and addresses their application through practical examples of actual recording sessions and studio operations. The book takes you into the studio or concert hall to see how performers are positioned and how the best microphone array is determined. Problem areas such as reflections, studio leakage and isolation are analyzed from practical viewpoints. Creative solutions to stereo sound staging, perspective, and balance are covered in detail. Eargle's Microphone Book is an invaluable resource for learning the 'why' as well as the 'how' of choosing and placing a microphone for any situation.

Book Information

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Customer Reviews

I can't put it any more succinctly than the subtitle, `A Guide to Microphone Design and Application'.About half of the book covers microphone theory and design - to the schematic level - and is a goldmine for anyone interested enough not to throw away the spec sheet when they unpack a mic. I have some background in electronics and, although I've no intention or ability to try building a microphone, I guess I'm geek enough to find this stuff fascinating. From the history of

microphones, pressure and directionality principles and how to measure them, to varied applications and how different mics fit in, `The Microphone Book' is a technical reference work that's equally readable straight through.The applications half is where many readers will decide if the book is right for them. It's not particularly geared toward home recordists working in contemporary styles who are looking to emulate pro studio sounds in their bedroom. The author himself states the book was written primarily for engineers and designers. The musical application chapters are divided between classical (stressing various hall acoustics and ensemble setups) along with studio recording (focusing on drums, piano, voice). Additionally, there's information on broadcast communications (radio/TV spoken word) and live voice applications. I found the information solid, if the presentation feels a bit dry in spots.There's a terrific chapter on classic microphones featuring pictures and comparison specs that will have you drooling in no time.This is the third edition (2012) and includes an overview chapter on wireless microphone technology; I'm still a wired guy but I found it interesting - although there are more in-depth sources at this point. There's no mention of USB in the book.If you're a guitar player looking for examples of various ways to position a SM-57 in front of your stack, there are more concise books out there that include sample recordings. If you're an engineer, studying to be one, or have a serious interest in what's often regarded as the most important link in the audio recording chain, consider `The Microphone Book' everything else you might want to know that you won't get from practical trial and error.

This book is a technical reference for many different aspects of microphone construction and usage. Rayburn is a recording engineering with a lifelong interest in microphones and how they work. In this book, he explains the acoustic and electronic principles utilized by microphones, as well as how microphones can be used for recording or amplification. Topics covered in the book include: history of the microphone, sound transmission by microphones, types of microphones, microphone accessories, recording techniques and microphone placement in studio, live, and surround sound, microphone arrays, and the care and maintenance of microphones. The text is illustrated throughout with black-and-white photos, diagrams and charts. End material includes a topical list of references and biography for further reading.I found this book a great reference collection of information about microphones. I especially like the fact that Rayburn discusses each point generally without tying his explanations to any specific brand or model, except, of course, at the end, where he provides some descriptions of classic microphones. Much of the book is geared towards explaining the terms and concepts used to describe microphones, or their technical specifications. If you spend some time studying the text, you will have a much better idea of the differences between different types of

microphones, and what to look for when choosing a microphone for your next project. The book is definitely aimed towards geeks, with plenty of physics, electronics, and even some calculus as well. Fortunately, Rayburn's explanations are clear and are relatively easy to follow if you have a technical background. And if math isn't your thing, you can just skip to the more practical sections, like microphone placement and maintenance. Overall, this book provides a great overview of the world of microphones and would make a great reference in any recording studio.

Brilliant reference book for the novice or professional. My 16 year old son is on the stagecraft team for the local highschool that is an arts school. This year they have a new stagecraft teacher and they had to set up the stage area from scratch because it had never been set up properly. With this book as a reference they learned about sound and how to use the correct microphones, how to care for them and how to acoustically set them up. Highly recommended.

I am not a sound engineer or microphone designer and many of the graphs and mathematics in this book is just way over my head. That is not to say that there isn't anything useful for someone like me who is involved with film and video production. I wish I had had this book years ago.For me it gives a lot of details on various aspects of microphones, techniques and schematics. Much more than I actually need. The whole designing side is beyond me. It is definately for someone who is serious about sound recording and microphones and personly I found some of it hard to understand.

I have read quite a few books about microphones but this book goes so much deeper and reveals the fundamentals of the basic frequency response of the different types of microphone and how the manufacturers deal with these responses to produce a nice sounding and useful microphone. Also covered is how the directional properties are achieved and most of the variations used for doing this. There is a section on the interfaces and the effects these can have on a microphones performance.The updated version of this book covers the new technologies like the digital microphones and the methods of remote control for these.It is a valuable addition to my growing library and I place it among my prized reference books.

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