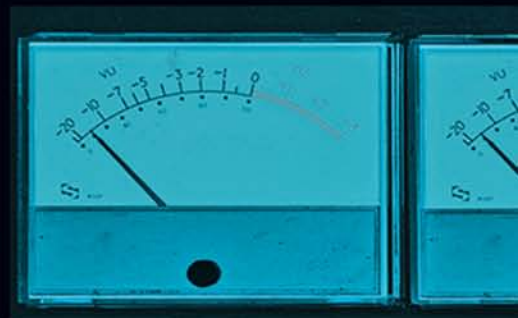


EVREN GÖKNAR

MAJOR LABEL MASTERING



PROFESSIONAL MASTERING PROCESS

A Focal Press Book

ROUTLEDGE

Praise for *Major Label Mastering*

"Absolutely essential for anyone seriously considering any aspect of mastering as their passion or career choice [...] this is an under-the-hood approach which anyone involved in mastering can use to understand the entire process."

—Greg Calbi, Sterling Sound

"One of the first songs that Evren mastered for me was a very open, old-school sounding, Ray Charles-esque type of song. He suggested using one of the classic Capitol Records echo chambers on the mix. My first thought was, 'thats insane!', but my second thought was, 'thats cool!, let's do it!' I realized very quickly that I was working with a very creative, open-minded Mastering Guru, who was going to take my mixes to a new level of creativity. Since then, Evren has mastered well over 800 songs for me. In addition to the great sounding final master, what I value about Evren is that he understands the importance of building the relationship between the Mixer and Mastering Engineer. Over the years my mixes have evolved and improved based on what I've learned from Evren and his creative approach, techniques and ideas that he has added to my mixes. It's as if we're on the same football team and I pass him the ball around the 30 yard line so to speak, and Evren runs it in the rest of the way for the goal! Now he has put his techniques and creative approach to Mastering in writing. This book is a must-have for any aspiring student or professional alike seeking a better understanding of the fine art of Mastering!"

—Bill Appleberry, Producer, Mixer (*The Voice*, *The Wallflowers*, *Operator*, *Puddle of Mudd*, *Stone Temple Pilots*)



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Major Label Mastering

Major Label Mastering: Professional Mastering Process distills 25 years of mastering experience at Capitol Records into practical understandings and reliable systems. Containing unparalleled insights, this book reveals the mastering tricks and techniques used by Evren Gökner at one of the world's most notable record labels.

Beginning with the requisite competencies every Mastering Engineer must develop, *Major Label Mastering* delves into the particulars of the mastering studio, as well as fundamental mastering tools. Included among these tools is The Five Step Mastering Process, a rigorously tested system that equips the practitioner to successfully and confidently master a project to exacting standards of audio fidelity. Covering all bases, the book discusses both macro and micro considerations: from mindset approach and connecting with clients down to detailed guidelines for processing audio, advanced methods, and audio restoration. Each chapter ends with exercises intended to deepen understanding and skill, or to supplement course study.

Suitable for all levels, this is a unique resource for students, artists, and recording and Mastering Engineers alike. *Major Label Mastering* is supplemented by digital resources including audio examples and video tutorials.

Evren Gökner is a Grammy® Award-winning Mastering Engineer who has been employed at Capitol Studios in Hollywood for 25 years. His work is sought after worldwide, with his mastering credits including legendary recordings and artists ranging from Mariah Carey to KISS, along with hit television shows *The Voice* and *Songland*.



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Major Label Mastering

Professional Mastering Process

Evren Gökner

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For Esma and Milas



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System is that principle of order by which confusion is rendered impossible.*

—James Allen, *Eight Pillars of Prosperity*

* James Allen (1911) *Eight Pillars of Prosperity: Fourth Pillar—System*, New York, NY: Penguin. p. 80. Penguin Edition 2009.



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Preface

I'VE JUST SEEN A PLACE

The first time I saw the Capitol Records building in person was in December of 1983. I was 17 years old, a senior in high school and had traveled west from my home in Detroit, Michigan to visit my sister in San Francisco for the Christmas holiday. We drove to Los Angeles to explore Hollywood. I still remember driving south on the 101 freeway and passing the iconic round tower. I became immediately transfixed by its unmistakable atomic-age architecture—it appeared to float above a rectangular base like a Cold War-era rocket ready for launch. Capped with a needle-like spire and those massive letters (in case amnesia struck?) . . . it was the definition of a head-turner.

I recalled numerous record albums, including my favorites by The Beatles, Pink Floyd, Bob Seger, and others, all with the familiar oval logo printed on them. The rock radio stations in Detroit continually played recordings from artists on the Capitol Records label. I wondered if and when members of those bands had been there, and who might be there as we drove by. I wondered what the place was like inside. It possessed the mystical allure of a holy site, a mid-century curiosity on every Hollywood tour. We continued on with our sightseeing, but I couldn't know then that in 11 years, that building would become my second home, from where I would launch a career as a Mastering Engineer. For that matter, at this early juncture, I didn't even know that mastering existed.

A LONG AND WINDING ROAD . . . TO MASTERING ENGINEER

After college, I moved to Los Angeles to write songs and play in rock bands. In so doing, I implemented the pragmatic idea of seeking work in recording studios, to expand my musical community and access inexpensive studio time for my bands. Over time, this led to learning recording engineering. By the mid-1990s, I had worked as a recording engineer for over five years—primarily at Paramount Recording Studios in Hollywood, but also with producer Rudy Guess and independently at various Los Angeles studios—when I began to develop an interest in audio mastering. The first mastering session I attended was in 1992 with Bernie Grundman on the Carole King album “Colour of Your Dreams” (produced by Guess) that I had assistant engineered. Through research into the prospect of mastering, many résumés mailed to mastering studios and networking, I was ultimately hired by the mastering department at Capitol Records.

INITIAL DUTIES

After working as a recording engineer, my initial duties at Capitol Records seemed mundane, but later as a Mastering Engineer, I understood their incredible value. My job was to duplicate, quality control (QC), and assemble or otherwise prepare compact disc (CD) masters that were in the pulse code modulation (PCM) 1630 ¾" video cassette tape format. For editing, assembly, and QC, I used the Sony DMR-4000 VTR and the Sony DAE-3000 Editor. In addition to QCing, this involved such glamorous

tasks as: PQ encoding (entering the start and stop indexes that end up in the P and Q subcode of a compact disc) and generating a PQ sheet, inserting digital black between songs, printing out a clean bit stream analysis (no mutes) of the audio, and labeling the 1630 tape . . . with a typewriter. These projects were generally reissues from the catalog department or mastered by established Mastering Engineers.

I quickly began reframing my recording and mixing skills and applying them into a mastering context. Soon I was performing assemblies from analog tape to digital 1630, including level adjustments and equalization (EQ). This also meant earning the confidence of catalog producers who would later enlist me for remastering seminal albums or new collections from the Capitol Records catalog.

QUALITY CONTROL (QC)

QCing refers to listening down to an entire album or mastering project once it has been completed to verify its integrity (from first to last song). I did this exclusively for about a year while beginning to EQ and master client source tapes. QC remains an essential skill for a Mastering Engineer that involves identifying and articulating artifacts, anomalies, or problems on an audio master. The care and attention to detail honed in QC translates to other critical mastering skills.

THE FLAT TRANSFER

In order to preserve tapes or create a backup for the library, I would often make a *flat transfer* to a digital or analog format. High-quality transfers pertain to mastering, and represent a fundamental aspect of the art. You play back the audio source and record or capture to create a new one. Again, this could be to make a production master or a safety of the original—especially commonplace if the original is deteriorating or damaged.

THE ASSEMBLY

Often, the various departments at Capitol from front line to catalog would require masters to be assembled for new releases. Previously mastered audio from various albums would be compiled into a new master, known as *assembling* a master. With an *assembly*, leveling of the album to a target level is required, and occasionally some light equalization (EQ), but generally it means compiling the tracks in sequence for a new master. Practicing this by loading a set of songs into your digital audio workstation (DAW), then matching their volumes to a selected target level and generating a compilation, represents an excellent exercise. As a component of mastering, compiling *assemblies* is a good way to understand additional enduring mastering concepts such as song-to-song cohesion in both frequency response and level.

SUMMARY OF SUBSIDIARY DISCIPLINES

Command of these three subsidiary disciplines of mastering proved essential to my evolution in professional audio. The hierarchy of tasks and job classifications at

Capitol provided fertile ground for development into the role of Mastering Engineer. Compounded with my recording experience, I understood how the patience and skills developed with these tasks would inform my habits as a Mastering Engineer. One of the issues with the proliferation of technology, and more people embarking on audio careers, remains that they tend to skip time spent developing foundational skills. I admonish neophyte engineers to take heed—develop skills in QC, transferring between formats, and the assembly of compilations or CD Masters.

PAPERBACK WRITER . . . ?

I came to write this book after initially writing a comprehensive outline for a ten-session mastering workshop. It began by answering the question, “What is mastering?” and continued through the various steps of what actually takes place in a mastering session. Subsequently, I gave a one-hour talk on mastering for the Audio Engineering Society club at California State Polytechnic University Pomona, and a student inquired about the workshop. At the same talk, I met the head of the Music Technology Department there, Arthur Winer, who asked me if I would be amenable to teaching their mastering class. I agreed, and blended my workshop lessons with the existing course syllabus for a robust class on audio mastering.

I found teaching rewarding, and realized that I remained uniquely positioned to impart valuable information to enthusiasts of audio mastering. I was ultimately inspired to write a book on the subject when it became clear that my unique experience mastering at Capitol Records should be documented and available for reference; and that there existed a dearth of published material outlining a comprehensive step-by-step approach to mastering. So, I began to write and committed to completing this technical guide and practical manual about audio mastering.

Evren Gökner
Los Angeles
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