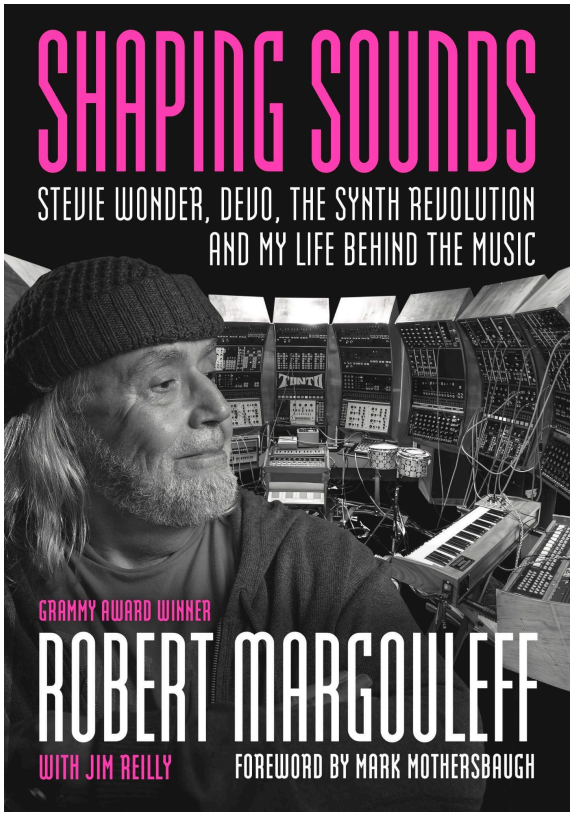

Shaping Sounds is the authentic, conversational memoir of Robert Margouleff, a Grammy-winning engineer, producer, and electronic music pioneer whose career has been a constant dance on the edge of innovation. The story follows his journey from a "hippie bad boy" in New York to a revolutionary figure in the music technology industry. Central to this story is his partnership with Malcolm Cecil, with whom he invented **TONTO** (The Original New Timbral Orchestra), the world's largest synthesizer.

The book's centerpiece is Robert's and Malcolm's transformative collaboration with **Stevie Wonder**, producing four legendary albums: *Music Of My Mind*, *Talking Book*, *Innervisions*, and *Fulfillingness' First Finale*. Margouleff provides technical and personal insights into how they revolutionized R&B by integrating electronic textures with live soul and funk. Beyond Wonder, he recounts producing **DEVO's** breakthrough album *Freedom Of Choice*, working with artists like Billy Preston and The Isley Brothers, and his later innovations in immersive audio and film post-production through his company, Mi Casa Multimedia.

At the story's heart, woven through the technical triumphs is the deeply personal narrative of

Robert's life as a gay, Jewish kid from Great Neck, New York, who ended up living in a world where closet doors were far from open. Robert also highlights a shared commitment to humanism and racial progress—values forged at the Stockbridge School that defined his work with Stevie and **DEVO**. Ultimately, this is a story of how technology, paired with a humanist soul, can revolutionize art.

Table of Contents

- **Foreword by Mark Mothersbaugh of DEVO**
- **Prologue: Memorial Day Weekend**
- **Chapter 1: Planting Seeds**
- **Chapter 2: Learning Became Living**
- **Chapter 3: Finding My Voice**
- **Chapter 4: The East Village ... via Uncle Sam**
- **Chapter 5: Ciao! Baby**
- **Chapter 6: Tuning Into the Future**
- **Chapter 7: Total Chaos and 'Vitamin Shots'**
- **Chapter 8: Fire Island and the Reset Button**
- **Chapter 9: Two Minds, One TONTO**
- **Chapter 10: It's Stevie Time!**

- **Chapter 11: Go West: The Record Plant Years**
- **Chapter 12: The Magic We Created**
- **Chapter 13: Our Nonstop Studio**
- **Chapter 14: All Good Things Must End**
- **Chapter 15: Life After Wonder**
- **Chapter 16: My Journeyman Years**
- **Chapter 17: Let's Whip It Good**
- **Chapter 18: It Was the 80s, After All**
- **Chapter 19: What's a Nice Gay Man Doing Marrying a Sweet Woman Like This?**
- **Chapter 20: Flying Down to Rio**
- **Chapter 21: A Producer at the Crossroads**
- **Chapter 22: Immersive Audio (At Last)**
- **Chapter 23: Mi Casa: Bringing Surround Home**
- **Chapter 24: Chasing My Tall Ship Dreams**
- **Chapter 25: Stepping Back From the Edge**
- **Epilogue: Still in the Game**

Chapter Summaries

Prologue: Memorial Day Weekend

The city was uncharacteristically quiet on that early Sunday evening, Memorial Day weekend, May 1971. I was at Mediasound in New York, the resident electronic music specialist and "hippie bad boy," hanging out with my partner Malcolm Cecil. Suddenly, a voice called up from the street: Malcolm's friend Ronnie Blanco was outside with a tall Black guy who wanted to see TONTO. That somebody was Stevie Wonder. He came into the studio and never left.

Stevie was 21, his contract with Motown had just expired, he was a free man with money in his pocket and a burning desire to make music on his own terms. When Stevie first sat down at TONTO's keyboard, he tried to play a big chord with a lot of notes, like any piano player would have done. When only one note rang out, he thought it was broken. Malcolm had to explain that it worked like a trumpet or saxophone. Once he wrapped his head around that, we clicked immediately. By the time that long weekend ended, our three-year journey had begun. I had no idea then that our roles as associate producers, synth programmers and engineers would play a major part in shaping the history of pop music.

Chapter 1: Planting Seeds

I was born in 1940 and grew up in a typical middle-class Jewish family in Great Neck, New York. My mother, Ruth, was emotionally fragile and spent her days keeping the books for the family fur business while my father, Jean, was a master salesman often on the road. I was the "baby" of the family, and music was our common language. My sister Jackie's hours of daily piano practice filled the house with Bach, Brahms, and Beethoven. I eventually took up the cello, which Jackie would accompany; music always created decisive emotional moments for me.

Despite this, I felt lonely and emotionally isolated as a youngster. In 1952, my father's business fell on hard times, and my formidable French grandmother, Grand-mère, came to live with us. She was a phenomenal chef—the secret creator of what became Sarabeth's Marmalade—and she fostered my intellectual curiosity. As I entered my teens, I started questioning my sexuality, though the word "homosexuality" was never uttered in our house. I felt like a mess, failing classes and struggling with ADHD before it even had a name. My only refuge was the school orchestra.

Chapter 2: Learning Became Living

My parents finally heeded a psychiatrist's advice and sent me to the Stockbridge School in the Berkshires. Founded by Hans Maeder, a German World War II refugee. Stockbridge was a nonprofit, progressive, racially integrated experiment in educational democracy. Its credo, "All human beings are created free and equal in dignity and rights," was taken from the UN charter, and the UN flag flew in the front of the school. Stockbridge shaped me forever.

Life there was an experiment in community; we called teachers by their first names and did all the chores ourselves—there were no janitors or servants. We began each day with "morning music," twenty minutes of stillness while listening to classical records. I loved working with my hands on the forestry crew, felling trees with an ax and driving tractors. Every Wednesday, we gathered as equals to discuss grievances and world affairs, such as the integration of the Little Rock Nine. At Stockbridge, I found stability and a voice. These lessons in human rights and racial equality became my credo, fitting neatly into the worldview I would later share with Stevie Wonder.

Chapter 3: Finding My Voice

Following graduation, I spent a summer at Tanglewood, the Boston Symphony's summer home. It was a time of total musical immersion under maestros like Leonard Bernstein and Charles Munch. More importantly, it was at Tanglewood that I finally accepted my homosexuality, discovering I wasn't alone among the faculty and students. After that, I had a brief, miserable

stint at a conservative Methodist college where I felt different and isolated again, quit that, and to New York.

I reconnected with Dr. Hugh Ross from Tanglewood, who invited me into the Schola Cantorum, the choir of the New York Philharmonic. Performing at the opening of Lincoln Center in 1962 under the baton of Leonard Bernstein remains an unforgettable peak. I studied opera under the diva Herta Glotz, but I realized I didn't want the soloist's spotlight. I eventually discovered the drama department at LIU. While my acting debut was a failure, I found myself totally at home in stagecraft and lighting design. I loved being behind the curtain, where I could control the environment and set the scene, a power that would eventually launch me into a future of sound engineering and studio design.

Chapter 4: The East Village ... via Uncle Sam

With tensions in Vietnam mounting and uncertainty about what that would mean for me, I took my fate into my own hands and enlisted in the US Army. This allowed me to choose my own path and have a little more control over my destiny. I signed on as a combat motion picture photographer. The training was intense, teaching me to tell a story by editing in-camera while shooting under battlefield conditions. Stationed in Germany, I lived a double life: a straight army photographer by day and a gay ballet photographer by night. After I was found out by my commanding officer, I was given a general discharge. I returned to New York at twenty-six, settling into the heart of the emerging hippie scene in the East Village.

The neighborhood was grimy but vibrant, full of flower power and social change. I founded Centaur Films, met musician Timmy Dulaine sitting on a trash can with a five-string guitar, and later recorded him and his band Buckwheat. At twenty-eight, I felt like a film mogul in the making, producing short films for Paramount. I was running with playwrights, and with Bill Graham as the Fillmore East took shape just around the corner. I lived in a salon-like railroad flat furnished from the street by my majordomo, Bobby Anderson, a fabulous hippie haven that often hosted denizens of Warhol’s Factory. I was a Jewish boy from Great Neck in the middle of

New York's most exciting scene, ready for my dual track in film and electronic music to begin.

Chapter 5: Ciao! Baby

My path intersected with Andy Warhol's world when I met Chuck Wein at the Tor Restaurant. Chuck was Andy's right-hand man and his blonde, blue-eyed favorite. He proposed making an underground movie starring Warhol's superstar, Edie Sedgwick. It was my idea to combine Warhol's vérité style with professional equipment to create what I called the first "aboveground/underground" movie: Ciao! Manhattan. The film was made with a whole crew of refugees from Warhol's Factory, including art director David Weisman (Raka) and musician-actor Gino Piserchio.

Edie, whom Chuck had discovered at Radcliffe while he was a Harvard student, was stunning but stoned out of her mind at our first meeting. The chaos continued. Production turned into a five-year nightmare of self-destructive lifestyle choices. Edie lived at the Chelsea Hotel because she loved its artistic history and easy access to drugs. In May 1967, she blacked out with a lit cigarette in her hand and set fire to her room, destroying $50,000 worth of fur coats my father had loaned her. After being hospitalized for burns, she moved into my Lower East Side apartment for fifteen weeks. My housemate, Bobby Anderson, became her de facto nurse, calling her "The Big Q-Tip" because of her bandaged hands. I witnessed the tragic beauty of her lost soul. Her full-time addiction eventually made the project a document of the Silver Sixties' madness rather than the film I had envisioned.

Chapter 6: Tuning Into the Future

While struggling through the *Ciao!* production, I heard strange electronic bleeps and bloops one night in the East Village, as I passed a club called Cerebrum. It was as if a magnetic force drew me into the club. I walked into the sound booth and saw a Moog synthesizer. It was love at first sound. I knew instantly I had to have one to score *Ciao!*. I bought one of the first systems Bob Moog ever built and converted my film stage into a recording studio.

I began producing Lothar & The Hand People, one of the first rock bands to use synthesizers both on stage and in the studio. Bob Moog himself would come down with his soldering iron to help stabilize the gear. We were in a cloud of pot and hash, figuring out how to play an instrument that had no instruction books. Producing their single "Machines" influenced me deeply—I still hear its DNA in my later work with DEVO.

Chapter 7: Total Chaos and 'Vitamin Shots'

The *Ciao! Manhattan* set was heavily influenced by Dr. Max Jacobson and his special "vitamin shots," which were manic doses of amphetamines. Jacobson got everybody high while feeding us lines of mystical bullshit. One of our wildest days was shooting at Al Roon's Health Spa, where reality and fantasy merged into a drug-drenched orgy.

My father became an accidental star in the film, playing the ruthless kingpin Mr. Verdecchio. He was a natural improviser, but when we shot the "Medium Convention," and he saw Allen Ginsberg walking around nude, he was shocked and indignant. As the production unraveled and Edie went into meltdown, I finally fired Chuck and his writer-editor Genevieve. We tried to rescue the film, with Gino Piserchio composing an entirely electronic soundtrack on the Moog, but the New York production eventually went down in flames, leaving me ruined.

Chapter 8: Fire Island and the Reset Button

After the failure of Ciao! Manhattan, I was a mess, and stayed rent-free with a gentle soul named Allen Kelly. In the summer of 1968, we rented a house in the Pines on Fire Island, a car-free paradise and safe haven for the LGBTQ community. Fire Island offered me a respite from the chaos.

At the end of that summer, after a night of intimacy and an LSD trip, I took a walk on the beach alone at dawn. The sun was coming up, and I was wearing nothing but a loose kaftan. In that moment of heightened sensitivity, I realized that accepting my identity brought me a deep sense of serenity. That moment of enlightenment changed me forever and led me to a life

dedicated to music.

Chapter 9: Two Minds, One TONTO

I returned to New York and joined Mediasound Studios as their resident electronic music expert. There, I met chief engineer Malcolm Cecil. We instantly realized we were from the same tribe—another planet entirely compared to the button-down-shirt-wearing, uptight senior engineers. Malcolm and I made a deal: he'd show me how to run the soundboard, and I'd show him how to play the synthesizer.

Together, we invented **TONTO** (The Original New Timbral Orchestra). It was the largest synthesizer in the world. It was a real-time multi-voice rack of electronics connected by a central brain Malcolm designed, allowing modules from Moog, ARP, and Serge to communicate. We conceived its massive twelve-foot footprint on paper tablecloths at a Chinese diner. We pushed analog technology to its limit, overdubbing single notes to create acoustic/electronic "chamber music". Our group, Tonto's Expanding Head Band, released *Zero Time* in 1971. Reviews compared the sound to taking acid and discovering your mind could stop your heart. We were standing on a blank canvas, and Stevie Wonder was about to walk onto it.

Chapter 10: It's Stevie Time!

Stevie Wonder arrived at Mediasound in 1971, newly independent and looking to shed the Motown formula. He wanted an instrument of expression that would let him bend sounds and capture the music in his mind. Malcolm, Stevie, and I were all seekers—a match made in musical heaven. We worked on "Stevie Time," often starting at 4 pm and emerging blinking into the morning light at 7 am.

Because Stevie was blind, we focused on keeping the studio environment predictable and stable; instruments never moved, and an open mic in the control room allowed him to always hear us. We recorded his parts one note at a time, building sonic soundscapes that were conceived as recordings, not imitations of live performance. Stevie had an incredible internal

clock and rarely used a click track; his timing changes were already in his head. We captured everything he did on tape, creating a database of songs that fell constantly out of his soul. In the beginning, it was just the three of us, pure and obsessive.

Chapter 11: Go West: The Record Plant Years

Stevie used our Mediasound recordings as leverage to sign a revolutionary deal with Motown, granting him creative control. We relocated to Los Angeles and settled at the Record Plant, where Gary Kellgren and Chris Stone rebuilt Studio B specifically for us and TONTO. The Plant was a decadent, psychedelic hive featuring themed bedrooms and the blue-tiled Jacuzzi Room.

We began monitoring in quadraphonic sound, placing Stevie in the center of an immersive sonic bubble that pounded his chest and moved his body. Outside the studio, my life flourished. I lived in a Big Rock beach house with my boyfriend, Michael Korhonen, an acrobat and gifted photographer who had driven all our belongings across the country. After Michael moved on, I moved to a rustic ranch in Topanga Canyon where I rode my horse Iron General becoming a "Jewish cowboy" who arrived at sessions smelling like hay and horses.

Chapter 12: The Magic We Created

This chapter details the technical peaks of our partnership with Stevie. *Music Of My Mind* was our first adventure, with Stevie playing almost every instrument. On *Talking Book*, we created the iconic "Superstition" riff by experimentation with the Hohner clavinet through Mu-Tron and wah-wah pedals. Stevie's drum performance was astounding—he played for five minutes with no guide, hearing the entire song in his head. I took the cover photo for *Talking Book* in the Hollywood Hills at dawn, underlined by biblically themed Braille.

Innervisions was our peak, winning us a Grammy for Best Engineered Recording. We created a radio-drama soundscape for "Living For The City" using street noises I recorded. To get the

right vocal, we deliberately provoked Stevie, stopping his takes to make him hoarse and angry. After the album's release, Stevie survived a severe car accident that left him in a coma for five days. He returned more somber and introspective for our final project, *Fulfillingness' First Finale*, which speaks to me as a eulogy for our TONTO years.

Chapter 13: Our Nonstop Studio

Malcolm and I were creative and production collaborators across all of Stevie's projects, including albums he produced for others. We worked on Syreeta Wright's debut and Minnie Riperton's *Perfect Angel*, featuring her astounding falsetto on "Loving You". We also recorded two landmark albums by the Isley Brothers: *3+3* and *The Heat Is On*.

The Isleys were a professional, well-oiled machine who saw us purely as tools; O'Kelly Isley would show up with a briefcase full of cash to pay our $12,000 fee. We developed unique tones for Ernie Isley's guitar by recording through undecoded Dolby units, which gave us a distinctive, distorted, hard-edged sound. We continue to use our standard quad-monitoring setup, building the songs layer by layer while occupying the same space as the music. It was a time of using the latest technology to feed our creative spirits.

Chapter 14: All Good Things Must End

Success brought tensions as Stevie became surrounded by hangers-on who interfered with our work. At the 1974 Grammys, we won for *Innervisions*, but Stevie failed to thank Malcolm or me during the televised event. We were listed at the bottom of his *Billboard* thank-you ad, which Malcolm found demeaning. Motown wanted to project an image of Stevie as a solitary genius, diminishing our contributions.

The final break occurred during a session for *Fulfillingness' First Finale*. The studio was crowded with Stevie's posse partying and smoking weed. When Malcolm asked them to keep it down, Stevie snapped, "Hey, man, don't talk to my friends that way". Malcolm walked out, and it was over. Frustrations over royalties and a lack of recognition finalized the split. We created

something infinitely larger than ourselves, but the angels had finally left the building.

Chapter 15: Life After Wonder

Following the Stevie Wonder years, Malcolm and I released a second TONTO album *It's About Time,* but my heart wasn't in it. Soon, though, my spirits brightened as I began working with Billy Preston. Billy was a gregarious gap-toothed master keyboardist—the "Fifth Beatle"—who shared our passion for TONTO. We recorded *It's My Pleasure* at Kendun Studios, using stereo Leslie cabinets to give his Hammond B3 an astounding sound.

Billy, Howard Siegel, and I shared a deep bond as gay men in an industry where that was not yet publicly accepted. Billy struggled throughout his life with this, as it conflicted with his religious roots and public image; he never came out until close to his death in 2006. At his Topanga ranch, however, we found a sanctuary where he could be himself. Malcolm and I would soon go our separate ways. I eventually began working solo with Howard, a bond that was intellectual and spiritual. After a disastrous live TONTO performance on *The Midnight Special*, I realized I belonged behind the curtain. Malcolm and I parted ways amicably, and I gave him my share of TONTO to become an independent producer.

Chapter 16: My Journeyman Years

By late 1976, I was working as the Chief Consulting Engineer for the Record Plant, often acting as a buffer between Gary Kellgren and Chris Stone as their personal relationship soured. I lived the Hollywood dream in a house with a spectacular view from Lookout Mountain in Laurel Canyon. I was a frequent participant in the feverish LA nightlife, at clubs like the Starwood, where record company executives would gather in the green room for all kinds of debauchery. In 1977, I traveled to New York to produce Chris DeMarco's Riff Raff at Mediasound, eventually mixing at the freezing, high-altitude Caribou Ranch in Colorado.

Chapter 17: Let's Whip It Good

In 1980, I met DEVO. They arrived for our first meeting at the Record Plant in full nuclear-waste-worker costumes straight from a Neil Young film shoot. These "white alien robot spud boys" from Ohio wanted to put an "alien head on an R&B body," and I loved the hybrid concept. *Freedom Of Choice* was a massive deal—the band's breakthrough album and the start of my lifelong friendship with Mark Mothersbaugh and Jerry Casale.

Using many of the tricks I'd learned over the years, I kept the band on edge and pushed them creatively. The whole band, minus drummer Alan Myers, played together in the control room without headphones to capture their live energy. For "Whip It," we recorded a real bullwhip crack in an alleyway; I even snapped myself in the face trying to do it. We kept the recordings raw and edgy, using close-mic vocals. DEVO's theory of de-evolution offered a predictive glimpse of humanity's destructive nature, and the album's success gave them the credibility that their label, Warners Bros., demanded. It was a pure, creative collaboration—the kind of place where the best stuff happens.

Chapter 18: It Was the 80s, After All

The early 80s were defined by bold colors and synth-driven sounds. I produced David Sanborn's *As We Speak*, recorded digitally with the 3M Digital Audio Mastering System. While digital offered incredible clarity, the machine was notorious for overheating. During this era, cocaine flooded the industry like a tsunami, even being listed as an expense line item in budgets. I found myself becoming an addict, chopping lines alone in my underwear at 1 am, until I looked in the mirror at my haggard face and realized I had to stop cold turkey.

Chapter 19: What's a Nice Gay Man Doing Marrying a Sweet Woman Like This?

In 1986, I married Barbara Shelley for all the wrong reasons—part mid-life crisis, and part because it was still "don't ask, don't tell" in the music business. I went back into the closet after decades of liberation, which left me feeling emotionally suppressed. I produced Wilson Pickett's *American Soul Man* during this time; he was a challenge who demanded "a tureen of Chablis" in

the studio. In 1987, Hans Maeder visited me one last time before his death, revealing his own struggles and leaving me a gift of gay magazzines, silently teaching me to accept my sexuality. This was transformative, as I realized then just how deep and profound his mentorship of me had been. Sadly, this era also saw the death of my partner, Howard Siegel, from AIDS in 1991.

Chapter 20: Flying Down to Rio

In 1987, I met Brant Biles, starting a partnership that would last twenty-six years. We worked on Shadowfax's *The Odd Get Even*, using the Bedini Audio Spatial Environment (BASE) processor to create holographic soundscapes. Our biggest adventure was recording the Rock in Rio II festival in 1991 for US broadcast.

The festival was a non-stop grind; we'd finish our work at the stadium around 11 pm and then head across town with a security detail to mix until dawn. We slept on blankets under the studio piano, transmitting mixes via satellite. For me, the energy of the crowd singing A-ha's "Take On Me" a cappella was overwhelming. Shortly after returning, I divorced Barbara—we had simply fallen out of love. I moved to Burbank, ready to become an entrepreneur.

Chapter 21: A Producer at the Crossroads

My career shifted as I mixed smooth jazz fusion for artists like The Rippingtons and T-Square in Tokyo. While successful, I felt like a hired gun, without creative input, and missed the social activism of my youth. This led to me producing *Alternative NRG* for Greenpeace in 1993, recording rock stars like U2 and R.E.M. using a solar-powered trailer called Cyrus. It was an engineering tour de force that reawakened my social consciousness.

Chapter 22: Immersive Audio (At Last)

In 1996, I discovered DTS – the theater surround system endorsed by Steven Spielberg – and realized its 5.1 cinema sound was the reality of what Malcolm and I had attempted with quad monitoring decades earlier. Brant and I joined DTS Entertainment to remix classic albums in immersive surround sound. Working at the Enterprise studio with a Neve Capricorn console, we

learned how six channels of audio changed all the rules of mixing. I moved centerstage, presenting at electronics shows and touring to tell the story of surround sound.

Chapter 23: Mi Casa: Bringing Surround Home

In 1999, I founded **Mi Casa Multimedia** in my Hollywood apartment, specializing in restoring and remixing movie soundtracks specifically for home theater. Our nearfield mixing approach became a massive success, allowing directors like David Fincher to perfect their audio in a living-room setting. We eventually moved into Bela Lugosi's former 1930s Mediterranean home, retrofitting it with three world-class studios while preserving its historic patina.

Mi Casa became a thriving hive of production. We worked on over one hundred movies, from *The Lord Of The Rings* to James Bond remixes. I was living over the company store, feeling like the king of Hollywood, unaware that my slippery slope had already begun.

Chapter 24: Chasing My Tall Ship Dreams

The sea has always been in my blood, and seeing the tall ship *Lynx* in 2010 inspired me to return to filmmaking. I produced the documentary *Tall Ships: The Privateer Lynx* to raise environmental awareness, capturing the rigors of seamanship using handheld HD digital cameras. I became an unofficial crew member, learning the ropes in gale-force winds while filming teamwork and self-reliance at sea.

Below decks, it was often 100+ degrees and grimy, but I felt at peace with the power of the sea just a foot away from my head. The film featured an electronic orchestral score composed by David James Nielsen, which we arranged at Mi Casa using classical sound samples. I even provided the narration myself. Although I started Safe Harbor Pictures to tell more seagoing adventure stories, the financial headwinds were too strong to keep it afloat. This project was the culmination of all my life's paths—music, cinematography, synthesis, and social activism—all coming together in one last loving embrace.

Chapter 25: Stepping Back From the Edge

Mi Casa collapsed after New Line Cinema was dismantled, leaving me drowning in debt and a crippling addiction to Ativan and Xanax to numb the panic. I lost everything and filed for bankruptcy. On May 12, 2012, I walked into an Alcoholics Anonymous meeting and finally surrendered. Recovery became the most critical project of my life. Through the program and the daily commitment of friends like Janel Silverstein and Dan Kavanaugh, I sharpened my mind and returned to my work.

Epilogue: Still in the Game

I stayed in touch with Stevie Wonder, even programming a TONTO-style bass part for a song he was working on in 2021. TONTO has been restored to all its former glory and is making music again with a whole new generation of musicians at Studio Bell in Calgary, Alberta, Canada. As for me, these days I am pretty much a full-time tech evangelist, spending much of my time teaching and mentoring young engineers. I'm still pushing the boundaries of immersive audio and serve on HEAR 360's advisory board. Looking back over eighty years, I see that my life was the best school I could have attended. Technology continues to inspire my sense of wonder, and I am grateful for a future that is still unfolding exactly as it was meant to be.

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