



Mixed By Recio

Music-Making

Thoughts on Music-Making and Making Music Thoughtful

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Getting Started

Let's Make Some Music



There's no "one way" to make music. Experiment and develop your own workflow around the basic tasks involved.

Introduction

Hey there! Thank you so much for taking the time to read through this eBook. My goal is simply to help more people make more music more often. If you have the desire to make new music but can't seem to get started, or sometimes feel that you don't even know the right questions to ask, I'd love to help you move forward. Whether you call yourself a DIY musician, independent artist, or the occasional songwriter, you have music inside of you that ought to be heard. Like a good bottle of wine, your music becomes much more enjoyable when shared.

"Music in a vacuum isn't music. It's gotta be shared." –Greg Wells

If you've ever had an idea for a song in your head and just didn't know what to do with it, this eBook can help you get started. Perhaps you've already finished writing your next song and even have live performance videos posted to your YouTube channel. If so, congrats! But it doesn't need to end there. There are so many options today for creating your music and for releasing it to the world that it can be overwhelming. With so many choices in front of them, many talented songwriters and musicians simply never get started. Others never truly finish their songs, or constantly question whether they're even doing things right based on what they've seen and heard other artists do to make music.

This eBook will help you to better understand each of the main steps involved in the music-making process, but you need to know right now that this is NOT intended as a "How-To" manual for writing, recording, and releasing your music.

Simply put, there is no "one way" to make music. That should feel exciting and empowering because it means that everyone's workflow can be as different and unique as their music.

Before you start asking questions about selecting preamps, using Pro Tools shortcuts, or how to edit MIDI tracks, begin with the overall process of making music. What are the core tasks that every songwriter and musician need to address in order to create and finish their song so it can be heard? Regardless of our varying musical skills and different musical styles, we the music makers all have these same tasks in common and will need to face them at some point.

Start by focusing on *what* needs to get done. As you better understand *why* it ought to get done, you'll have a much easier time figuring out *how* to get it done by experimenting and developing your own system for making more music more often.

In this eBook we will easily connect the dots between each of the main steps in the music-making process. As the building blocks quickly fall into place you will be able to adjust your mindset to build your own framework around the process. You will be able to develop a workflow that makes sense for your musical goals and helps to answer the following questions:

- Why is crafting the song itself so important to everything else that follows?
- When can you tell each stage of the music-making process is truly finished so you can focus on taking the next step?
- How does each of the different stages relate to one another, and why is the path forward not always a straight line?

Note

The journey outlined here begins with writing a song and ends with getting it mastered for release. Based on your goals, there are other steps that can follow—like distribution, marketing, publishing and collecting royalties—but these are huge topics in their own right and each of the stages we do cover could easily be explored for days, if not weeks, or months. Instead, I simply want to provide some perspective into the process of making the music itself. With this eBook, I want to give you something that's easy enough to read and enjoyable enough to refer back to (whenever you need to) to not only get started but to finish that new song or album so you can share it with the world.

Rock On!

“The world wants, and it needs, people who finish things.” –Jake Parker

Songwriting

It all starts with the song. Not just a good song but a great song. Now "great" can be a relative term and that's just fine because the goal right now isn't to compare each new song you write to the current Top 10 hits in your genre. Instead, take a new song that you feel good about and work through it to move it up one more notch on your "good to great" scale. Play through the song again and tweak it where it needs it to make that song even better. Rinse and repeat.

Have you heard of the Golden Turd? You can take a piece of shit and cover it in solid gold. You can polish the Golden Turd until it shines in the sunlight but at its core, it's still just a piece of shit.

Likewise, a shiny production of a bad song will rarely be as engaging as even a mediocre production of a truly great song. Live bands have always covered well-known songs for a reason: those are great songs and they know the audience will respond accordingly, even if the performance isn't perfect.

It always comes back to the song. Every step that follows in the music-making process will be either fueled or limited by the song itself. You can get the best session players to perform your song in the best sounding studio in town. You can throw tons of gear and effects at the song to make it shiny but if the song just isn't that great to begin with, it probably won't have the impact to resonate with your audience. Beware the Golden Turd.

Start by writing a song. Make it a good song. Then work to make it a great song.

Monday – Random Thoughts

An idea starts to form in your head. Sometimes it's a few words within an everyday conversation; other times it's a melodic phrase or just a few rhythmic drum beats. When we're able to hold on to these ideas, they can develop into a full song. With that as our goal, it's important to collect as many of these ideas as we can and hold onto them. As mysteriously as we can pull our ideas from the ethos, they can just as easily be lost again.



If you have a smartphone or tablet, use your voice memo app to quickly capture these ideas, wherever you are, before they're gone forever. The story goes that the famous bass line that starts the Queen & David Bowie hit, *Under Pressure*, was just something John Deacon played that morning while warming up but then almost couldn't remember after lunch. That one simple bass line became the foundation for a classic song but it almost didn't happen.

Once captured, these ideas can be developed over a few minutes, a couple of days, or even months (if you let them). Consider working to develop each idea as quickly as you can to let any and all creative energies flow without too much introspection and analysis. Don't kill the vibe. Let each idea flow and give it chance to develop a little to see where it leads you. Build on the momentum to explore the different directions that present themselves in these early moments. Take a lesson from comedy improv and replace thoughts of "No" with "Yes, and..."

Tuesday – There’s a Song in There...

Just like the Dan Wilson song from 2014 states, *A Song Can Be About Anything*.

Every rough idea has the potential to become a song but perhaps not every idea is worth pursuing—at least not right now. These ideas can be filed away for another time instead of being rejected outright when there are stronger ideas to pursue. Some songs will simply push themselves to the forefront of the creative stage that plays between your ears. With your song ideas, learn to differentiate the fruit that is ripe from the seeds that may take more time to nurture into something you can really work with today. Create a space, a garden of sorts, to plant these seeds so you can grow and harvest them later.

For many of us it can be terribly difficult to just sit down and write a song. Like anything else though, songwriting is a skill that you can learn to develop. On the first day of school, one of my music instructors handed me the seemingly simple assignment of starting a journal and writing something—anything—every day. You really need to try this because it remains an incredibly difficult assignment to complete, even 25 years later.

By training yourself to write on a regular basis, it becomes easier over time to just start writing without thinking *this has to be really good and worth writing down*. Instead, you learn to write just for the sake of writing. If you never write *anything* you're much less likely to magically write a good song. Has there ever been an artist who sat down every time and confidently stated "I'm going to write another hit song now..."?

Even if you're only interested in writing instrumental music, without lyrics, you can apply this same discipline to writing new material on a regular basis.

You've got to try in order to succeed. As hockey god Wayne Gretzky said, "You miss 100% of the shots you don't take."

Wednesday – Storytelling

When you realize "*Hey, there's a song in there,*" start to think about what story can be told through that song. Throughout time, mankind has always loved a good story.

A good story catches our attention, captures our imagination, and it keeps us engaged—which is *exactly* what you want your song to achieve when someone hears it.

Perhaps this is overly simplifying things, but consider the premise that every song written in the last 100 years falls into one of these basic categories:

- I love you
- I miss you
- I hate you
- Let's party

Supposing that these basic themes sum up all of our favorite songs, the challenge then is to retell the same story in a way that is as different and unique as you and I both are. Before you get discouraged

about the prospect of being 100% different, consider the fact that thousands of musicians are still writing new material every day using the same notes, chords, and themes that have already been used by everyone else before them. Why then don't we get tired of new music? We don't, as long as the story is told with a fresh spin.



Even if you've already written a dozen songs about your broken heart, there's no rule that says you can't revisit that same idea from a different perspective. Who is telling the story *this* time and who are they talking to? What happened this time, and why should anyone care? Changing any or all of these answers is usually enough to start developing a good storyline. Even coming up with a unique title, such as *Owner of a Lonely Heart* by Yes, can be enough to reframe the story.

The same basic theme of aliens coming to earth from outer space has been used many times in several art forms. Steven Spielberg first visited this theme in *Close Encounters of the Third Kind*, a few years later with *E.T.*, and yet again in *War of the Worlds*—each film with a different story and very different perspective on fatherhood: one dad who leaves his family, a kid whose dad is already absent, and one dad who risks it all for his kids. The same basic story can have layers and can change drastically based on the characters you cast and their perspective.

Remember that we all love a good story, so use your song to tell us one.

Thursday – Words & Music

Prosody is a term that refers to all of the elements within a piece of art working together in unison. In music, prosody is the marriage between words and music. The words you choose and the music you use should combine in such a way that makes the listener *feel* something as you tell the story. This is what can make each song uniquely yours.

Typically, the feeling you want to convey at a particular point in the song is going to be one of instability or tension that somehow resolves itself into a feeling of stability and closure. There are many ways to achieve this effect with just the lyrics, with the music by itself, but most effectively with both words and music aligned to evoke an emotional response from the listener. Prosody.

For some artists, it's much easier to come up with lyrics first and add music later. For others it's the complete opposite, with seemingly countless musical riffs but no lyrics. For others still, it can be a different challenge with every new song or even for different sections within the same song. Sometimes changing the instrument you write on, the gear you use, or even just a change in your location, can shake up your mindset and help you push through a particular roadblock.

This is a great time in the process to introduce the idea of collaboration: working with other writers/musicians to help put the words and music together to convey the right emotion and impact that

the song calls for. This notion can be difficult for many music makers, either out of some reservation about sharing their incomplete works in progress, or simply finding a few like minds with styles that complement their own. There's nothing that requires you to do everything by yourself in a vacuum. While having a lone songwriter or a pair of songwriters is still common, today's popular music is almost always being written by an entire *team* of songwriters. You may not want to take it that far and may not even like the popular music on the charts but do consider collaborating at even the earliest stages of your music-making.

If you struggle with words, find a lyricist who struggles with melody. If you can write lyrics but don't understand music, find a musician who needs lyrics for their melodies. Again, borrow a lesson from improvisation and take the time to explore ideas that build off each other, both melodically and lyrically.

I don't know if Modest Mouse actually said this, but I like to use the following quote to reiterate the potential impact any song can gain from even the smallest collaborative efforts between the words and music:

"Music is to the soul what words are to the mind."



Friday – Refining the Story

Take us on a journey worth taking (for 3-1/2 minutes or so).

By this point in your song's development, you've got a pretty clear picture of the story or mood you want to convey to your audience. If you understand the power of prosody, the words and music are pretty tight and the overall vibe is happening. Whether you get here in five days, five hours, or five minutes, it can be a great feeling.

Without overthinking it, you now have to ask yourself if the song is working the way you want it to from start to finish. Are there moments that lag or feel a little off? Play through the song a few times, taking notes when you hear or feel something isn't quite right and try to identify what is making you stop at that point in the song. Once identified, address each of these items as best you can by trying alternative rhyming schemes, phrasing, chords, voicings, rhythms, etc. to see what might work better for the song.

As you refine the song to tighten the impact of each section, remember the needs of the listener to make sure you're not focusing solely on your own needs as the songwriter. Nobody wants to sit through an indulgent smattering of half-baked ideas that never lead anywhere, regardless of the production value piled on top.

It's been said that Tom Petty would never move forward with a new song until he could get it to work with just vocals and an acoustic guitar.

If you want to keep the listener engaged, make sure the story is always moving along towards something more interesting. You can leave us wanting more but be sure you always leave us somewhere ahead of where we started.



Pre-Production

"A studio is an absolute labyrinth of possibilities—this is why records take so long to make because there are millions of permutations of things you can do. The most useful thing you can do is to get rid of some of those options before you start." –Brian Eno

Create the vision before you press the Record button

As you watch the credits roll for a film or TV show, have you ever wondered what the *producer* actually does? This same question comes up a lot in the music world but it's important to understand that the lines between producing, writing, arranging, and even mixing music have become more blurred in recent years with traditional roles becoming more fluid in some genres.

In short, the producer's role is to help the artist create an overall vision for the project and then guide that vision, whether for a full album, EP, or single. The artist wants to get from point A to point B and needs to use the producer's knowledge of the terrain to be their guide through the musical wilderness. The song is the artist's vehicle, and they're hiring the producer to drive it in the right direction.

Production efforts can span multiple stages of the music-making process, but *pre-production* is the important stage that occurs before the recording session takes place. Pre-production can be the bridge connecting the Songwriting phase to the Recording phase—it is an important *planning* phase that can often separate good records from great ones.

Some producers are more hands-on than others and while it's usually a much more collaborative process, think of the producer as being the *decider* and the artist as the *doer*. When most of the big decisions have been made in pre-production, the artist can go into the recording session to *do* what has already been decided is worth doing.

Pre-production is another moment in the music-making process where collaboration often comes into play. A good producer can listen objectively to the artist's song and help drive it to completion by guiding the right people at the right times to serve *the song*. The producer and artist can then form a clearer vision for the project and determine who and what will be needed to move it forward into the next stage of actually capturing a solid performance of the song.

Wearing Too Many Hats?



When you go into the studio to record, you want everyone to be able to focus on capturing a great performance of the song on which you've worked so hard to develop. Even if you're not paying by the hour in a professional space, you want to go into the recording session ready to rock, wearing your Musician hat now, having left your Songwriter hat at home. Pre-production can help get you there.

The list below includes some of the main items to think about before pressing the Record button. By already having most of the song "figured out" ahead of time, the creative energies that go into performing the parts won't get interrupted by constant changes and second-guesses to what has already been rehearsed. That said, you should always leave some room for the "magic" to happen. Always be open to those in-the-moment flashes of inspiration that can happen when the tape is rolling (or the hard drive is spinning).

Key Signature

Major or minor? Happy or sad? Is D minor really the saddest of all keys? Are all of your songs written in the same key? Simply changing the key signature can change how you and the other musicians approach the way they perform their parts. Sometimes the verse in a minor key with the chorus in the relative major key works best for the song. Aside from mood, consider the key that best accommodates the range of your lead singer or lead instrument.

Tempo & Meter

Fast or slow? Your idea may have started as a ballad but does the song want to boogie? Even when you feel you've locked in the right tempo, you might feel a pull from a particular section of the song to speed up or slow down each time you play through it. Sometimes adjusting the tempo by even just a few beats per minute can open up the arrangement in ways you weren't hearing when you first started writing the song. Be open to what the song is telling you,

Most contemporary songs are written in 4/4, 3/4 or even 12/8, but there's no rule that says you can't drop in a single bar of 6/4, or even write the entire song in an odd meter such as 5, 7 or 9. **It's all about finding the right phrasing and groove.** The Dave Brubeck jazz classic, *Take Five*, is in 5/4 and—even though it's an instrumental piece and not easy to dance to—became a huge hit at the time, even crossing over into other audiences.

Within each time signature, find the down beats—the stronger beats—and listen carefully to how the melodic rhythm of the music works with or against the natural shape of your lyrics when you say them out loud. Short of changing the words you use, simple adjustments to the timing and where the words fall can make a big difference in impact.

Song Structure

The HOOK is the part of the song that gets stuck in the listener's head. You may have heard the phrase, *don't bore us, get to the chorus!* While most often the chorus, the hook can also be a short musical

riff or other element of the song that gets highlighted as part of the song structure. Intro, Verse, Chorus, Bridge, and Outro are the common building blocks used for most modern music but we can also make use of a pre-chorus and refrain, or we can even skip any of these if the song doesn't need it (like that 32-bar intro). When the chorus is your hook, and it's a strong one, there's no rule that says you can't start the song with it. Think *Eleanor Rigby* by the Beatles.

Instrumentation & Arrangement

Acoustic guitar or electric? Is this the right synth sound? More cowbell? Once you get your new song rockin' along, consider the different parts and the instrument used for each. Are they adding something to the song in that moment? Are they being highlighted or are they supporting? Are they simply distracting from something else? It's been said that most listeners can only pay attention to three parts at a time, so consider the priority of each element used in different sections of the song.

Doubling certain parts—like lead vocals and rhythm guitars—can really add something when used strategically. Layering parts on top of each other can be effective too but always be intentional, as stacking multiple parts in the same frequency range can also create a mess.



One of the most effective tools in the mixing phase often turns out to be the Mute button, but many of these creative decisions can be better served by figuring out *ahead of time* what parts are really needed, where, and why. When you don't want your mix engineer to alter your vision of the song, be sure to communicate a clear picture. A well-arranged song when performed well will often let the song mix itself.

Being intentional with your arrangements will save time (and money) in the recording studio and present a clear vision during the mixing phase.

Recording / Tracking

The recording (a.k.a., tracking) session is arguably the most important step after writing the song itself. Having worked so hard to craft a great song and develop the vision, it is critical to now execute that vision by capturing the most engaging performance possible. This should be the fun part—where we actually make music. For most of our history, music was something that could only exist in the moment it was being performed. Eventually, we started to write down our music to better share and remember the details, but making an audio recording of our musical performance, to play back at any time, is still a fairly recent development in the grand scheme of things. With the decline in records, tapes, and CDs, there has been a huge shift in how we listen to music. Digital downloads and online streaming have brought us back to *accessing* music as opposed to owning a physical recording of it.

What hasn't changed is that we have to make music worth recording and ensure we capture the energy that was in the room when it was performed. In the early days of audio recording, the technology required the musicians to play together, live in the same room. If one guy messed up, you had to either live with it or record another take. Multi-track recording then allowed engineers to record on discrete tracks, so everything didn't have to be performed at once. Multiple parts could be recorded individually or in small groups, then additional parts could be recorded over top as overdubs. Be sure to thank Les Paul every time you overdub a new track. With more than one track to hear, mixing the tracks together became a necessity.

Today we have the luxury of deciding which parts will be recorded together and which ones we will record as overdubs. Punching in to correct a small section—or even just one bar—is easier than ever. Multi-track recording is now something just about any musician has access to, whether in a studio, their basement, or recording on their mobile device. However you manage to record the different parts in your song, always remember to maintain the energy in each performance.

With most modern styles of music, the lead vocal is what the listener focuses on more than anything else and a solid vocal performance can drive that energy home. Plan to have your singer tackle the loudest or most difficult sections last—don't have them blow out their voice trying to belt out the last chorus before you've recorded the verses and quieter parts as well. Remain supportive too—particularly with your vocalists, as the human voice is the only instrument in the room where the person *is* the instrument. You can blame the set of strings when your guitar is out of tune, but blaming the vocal is blaming the singer. Be mindful that unnecessary criticism can really hit the person too, not just the performance. Making music is supposed to be fun, remember?

Whether everyone is playing live in the same room together or you plan to overdub each part separately, be cognizant of the energy and vibe being produced: is it helping or hurting the performance?

When the performance is solid, no one is really going to care what microphone you used or what software you used, as long as it was captured and captured cleanly. One of the key benefits of recording in a professional studio is not the gear and the space but the recording engineer who knows how to use the gear in that space. Having a capable engineer lets you as the artist focus on your performance so you don't have to juggle the technical side while also trying to focus on the music.



When you don't have access to a professional room, a well-run home studio can use many of the same techniques and much of the same gear on a smaller scale. Without access to a home studio, many will use their mobile device to record their music. Plenty of musicians continue to find new ways of developing the capability to record their own performances, whether out of preference or necessity. Regardless of who takes on the responsibility of recording and/or performing, don't ruin a great performance by neglecting a few basic things that you really just can't "fix in the mix".

Click or No Click?

There are plenty of benefits to recording to a click track but depending on the musicians and the overall feel of the song, there are times when *not* playing to a click track can bring better results. **When the tempo varies, be sure the band stays together.** It's not uncommon to have the drummer record to a click first (with scratch tracks and vocals for reference) and then do some quick editing on the drum tracks for any timing issues before the remaining parts are then recorded to the drums.

Beware of Click Bleed

If you are recording to a click track, **beware of any click bleed**, where the click track in the musician's headphones is loud enough to be picked up by the microphone during the quiet moments in the song, particularly at the end of section where the last note rings out, or when the singer only uses the headphones on one ear. Using closed-back headphones, changing the sound of the click, and even automating the level of the click track can help in these situations.

Use That Tuner

When playing a multi-stringed instrument such as a guitar, bass, mandolin, cello, or ukulele, **always check the tuning before each and every take**. Your mix engineer may be able to work some magic on a stray vocal but tuning issues on multi-stringed instruments will instantly take away from the final mix and it can be very difficult to recreate the energy or passion that went into an otherwise brilliant performance.

Avoid Clipping

The 1st example (in red, on top) is our “good” reference. It sounds clean. Same guitar, same G chord but the 2nd example (in green, on the bottom) is clipping. You can actually see the highest tops of the waveform being “clipped off.”



When the incoming signal is too hot, the signal can distort. Unlike some subtle analog distortion when recording to tape, **digital clipping sounds bad** and it cannot be undone later. Turn down the gain on your audio interface; don't just pull down the fader on your console or DAW.

By recording your tracks at more conservative levels, you can avoid any clipping and provide some needed headroom for mixing and mastering.

Commit to the Sound

With today's technology, it's easier than ever to record a lot of tracks and to delay a lot of creative decisions for later but this is not always the best approach. **Assuming you're happy with what you're hearing in the tracking session, commit to the sound right then and there.** Lock it in. This gives your producer and mix engineer a clear roadmap of where to go based on what has been captured with your intentions.

It's not uncommon to put multiple mics on your guitar cabinet but consider blending all of these signals to a single track for each guitar part recorded.

Print any MIDI tracks and virtual instruments to an audio track to capture the exact sound you used when recording. You can provide the MIDI track *in addition to* the audio if additional production or flexibility is still needed.

Slippery When Wet

Some light compression, EQ, and saturation can be a good thing if your engineer is experienced and knows what he/she is doing. Any processing used during the tracking stage is baked into the recorded audio, so things can get slippery when your tracks are too wet with effects that can't be undone later.

It can be better to record most tracks dry without any effects (reverb, delay, etc.). Give your mix engineer more flexibility when balancing the song as a whole by being able to add these individual effects later. If an effect is integral to the sound you want, consider printing the effect to a separate track that can be blended in with the dry track.

Editing

“Editing might be a bloody trade, but knives aren't the exclusive property of butchers. Surgeons use them too.” –Blake Morrison

Why should I bother editing my audio tracks?

Editing is an important function in print, film, and television. How the raw material is edited can make all the difference in how an audience responds to the story. Music editing is no different, as your raw audio tracks can now be tightened, scrubbed, adjusted, and even re-assembled to present the best possible recording to work with as you move forward.

Not too long ago, an engineer would use a grease pencil to carefully mark a position on the reel of tape and use a razor blade to physically cut out what wasn't needed before pasting it back together again with adhesive tape. The pressure to get it right the first time was huge, as a less-than-perfect edit would easily result in an audible click when the tape was played back. Today this process is much more efficient in a digital audio workstation (DAW), using a few simple keystrokes and mouse-clicks to easily manipulate digital files on the computer screen. Another big advantage with this digital editing is that it is *non-destructive*, meaning the source audio is left intact behind the scenes so you can always start the editing session over again without losing the original recordings.

Once your audio has been recorded, it is usually necessary to edit the individual tracks to correct any issues that might distract from an otherwise solid performance. This is no jab at the musicians, as they are not machines and our little imperfections as players are often what gives our music its uniquely human feel. It's these human qualities captured in the performance that get us to bob our heads and want to play some air guitar when we're listening back to the recordings.

That said, our ears have become more and more accustomed to hearing things that have been "snapped to the grid", meaning some quantization applied to get the down beats to fall more closely and more consistently to the fixed tempo of the song. This applies to plenty of other parts besides the drums and percussion. The bass guitar for example typically works closely with the kick drum, almost as a single instrument at times, and some "tightening up" of the bass line may be in order to make that integration more powerful. It's also not uncommon to hear that a rhythm guitar or piano part becomes slightly ahead or behind the beat at different points in the performance.

While often subtle, many listeners will say something just feels "off" without being able to pinpoint exactly what it is. With a good ear and some editing chops, you can use your musicianship to elevate your recordings to a whole new level by learning to identify and address these things. Of course, like anything else, too much editing can be a bad thing and overly-edited tracks will suck all life and emotion out of the performance you just worked so hard to capture.

Aside from edits for timing issues, comping and tuning vocals are both common editing tasks. Even great singers can miss a note after multiple takes and some subtle pitch correction can help "nudge" a stray note back into place. In some genres, this technique is used as a deliberate effect. Regardless of your musical tastes, don't dismiss auto-tuning as cheating or being lazy. It can be an effective tool when used tastefully and subtly.

"Comping" refers to creating a "composite" of several recorded takes to assemble a seemingly perfect performance made up of all of the very best takes of each verse and chorus performed. In some cases, a producer might even take the time to identify individual *words or syllables* to use. As an example, careful notes are taken to decide that from all of the different takes we recorded that day, we'll use the phrase "Baby, Baby" from take #4, the word "lips" from take #3 and the rest of the hook from take #2 to create the comped vocal track by stitching these pieces together. If this sounds like a lot of work, it usually is, but these techniques are often a part of what separates good-sounding records from great ones.

Editing should be planned for as a necessary and separate phase *before* moving on to the mixing phase.

When working on the mix, your mix engineer might still hear a few elements in your tracks that might be fairly easy for him or her to address but it must be made clear that editing is not mixing. Editing is not necessarily tracking either. Never assume that any time booked for recording or for mixing will include any editing services. Be sure expectations are clear to all involved when it comes to editing your audio tracks.

Oftentimes much of the editing can be done during or immediately following the recording sessions. Other times editing is delayed until much later but do not wait until the mixing phase has started to address your editing needs.

When your multi-tracks are already edited, the mixing phase can be focused solely on enhancing the individual parts and blending them together into a single performance, as outlined in the next chapter. Many mix engineers—including this one—will carefully listen to your multi-tracks early on to identify any potential editing issues and may recommend a separate editing session when needed.

When left as is, either because of cost, deadlines, or preference, unedited tracks can sadly cause your song to sound like a rough demo and miss the expectations both you and your audience have of your music.

Mixing

“Music is not math. It's science. You keep mixing the stuff up until it blows up on you or becomes this incredible potion.” –Bruno Mars

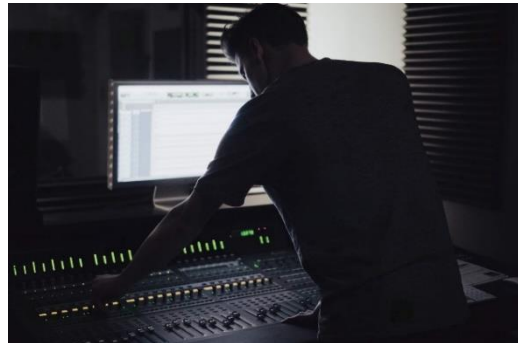
E Pluribus Unum

One from many. Depending on your vision, production value, or budget, your song may now have any number of multi-track files that must now be blended together into a single stereo mix that presents all of the recorded parts as one brilliant performance of the song. In some cases, this might just be a single vocal track and an accompanying instrument or two. Fleetwood Mac's *Songbird* is a great example of this. Recording a typical drum kit alone might easily add a dozen tracks to the total count. Add percussion, bass, guitars, keyboards, and horns, and now you've maybe got another dozen. With lead vocals and backing vocals you can easily end up with a total track count of 50. For more ambitious projects with lots of layers, samples, and printed effects, the total track count for one song might even exceed 100. But wait...

Less is More

Modern DAWs allow even the hobbyist to readily record dozens of tracks to build out their songs without too much limitation but let's be very clear—this should NOT be taken as a challenge.

As mentioned in previous chapters, your musical arrangement and the resulting recordings should be quite intentional. Your ability to make certain musical decisions early on and your willingness to commit to the sounds and tones captured during the recording session will be reflected in a lower track count, where most of the fat has been trimmed away so your song is already "lean and mean" before your mix engineer even hears it.



For a long time, songs that we all love and that are now considered to be classics were recorded to 24 tracks or less.

With a focus on what really adds value to the performance of the song, you might be amazed at how often high track counts are whittled down to a much more manageable number as the mixing process begins. If the part is intentional and serves a clear purpose, by all means record it and record it well with as many tracks as necessary, but do not try to build a huge wall of guitars by tracking twelve different performances of the same power chord.

With a manageable number of tracks to work with (and each serving a clear purpose), the focus should now be on mixing these together to arrive at the final version, which is then printed to a single stereo file. The mixing stage is when the song really comes together and truly sounds like a "real record" that you might hear between other songs on the radio or Spotify. The final mix is then provided to your mastering engineer who adds the final touches before your new music is ready for release.

With the overall blend in mind, the individual tracks can be adjusted to fit together better within the context of the complete mix. When soloed to only hear one part by itself, that one track might sound quite bad—too thin, too nasally, or whatever—but when mixed in with the rest of the tracks the balance is just right for the song. Search YouTube for "isolated multitracks" to hear examples of individual tracks pulled from songs you're probably already very familiar with.

Much of the final mix result will be based on collective experience, precedent, specific direction from the artist/producer, and ultimately the individual preferences of each mix engineer.

At this stage of the music-making process, the artist, producer, and mix engineer all have a mutual client in *the song* and should be working together to best serve the needs of the song.

If you already have rough mixes from the tracking session—or even your original demo recordings of the song—consider providing these to the mix engineer if they can help provide a good reference point for what you like and don't like, and where you feel the mix should be heading.

Audio Levels

Do all of the individual parts blend together as a single performance? Nothing should stand out or be too soft unless intended for that point in the song.

Frequency Balance

Picture high frequencies at the top, with low frequencies at the bottom. How does each part fill the vertical space in between? Do they fit together or compete?

Stereo Panning

Imagine the performers playing onstage in front of you. Strategically place each part on the left, right, or center to create width and an even distribution of sound.

Depth

A good mix creates a 3D sense of space using effects and frequencies to push some parts farther back while bringing others forward.

Engagement

A great song mixed well will create an emotional response in the listener. A good mix keeps the listener focused on the song itself, not the mix.

Mastering



So... What *is* Mastering?

Mastering is arguably the most misunderstood stage in the music-making process. Often shrouded in mystery, it is the last step in preparing your new music for release to your audience.

The final mix delivered by your mix engineer needs to leave plenty of headroom for the mastering engineer to work with as they optimize the final recording of your music. This results in that pre-mastered final mix to be noticeably lower in volume than the commercially released music you hear on the radio and online.

While clients are often provided with a louder version of the pre-mastered mix for better reference, understand that mastering is much more than simply making it louder.

Yes, the song will be louder after it's mastered but that is almost more a side-effect of the process than the overall goal. Do not let anyone charge you for "mastering services" by simply making your song louder. This is not mastering and they are doing your music a disservice.

To put it simply, mastering takes the final mix of your song and optimizes that stereo file for consistent results when played back on a variety of speakers and sound systems. Mastering can also take into consideration the specific medium on which your music will be released, so be sure to let your mastering engineer in on your plans for release and distribution.

After a huge decline, vinyl releases are once again becoming more common and there are definite aspects and physical limitations of a vinyl record that the mastering process can address. In fact, that's really where it all began—recordings had to be mastered to ensure that (among many other things) the needle on the listener's turntable wouldn't physically jump out of the groove because of the way certain frequencies were recorded. With most of today's music being mastered for digital download or for digital

streaming, other factors come into play but the same goals of optimization and overall balance remain the same.

As the writer and/or artist, you've been involved with your music from the very early stages of the music-making process. While admirable that you remain involved until the very end, there can be an advantage to bringing in a fresh set of ears vs. trying to do all of this by yourself. This is often done by hiring a dedicated mix engineer and a separate mastering engineer—again, both working together with you and the producer to serve the song but each with a specific focus and expertise within their respective roles.

A dedicated mix engineer will bring some much-needed objectivity to the song, as your ears (and mindset) may already be so used to hearing the music in a certain light, having heard it so many times or simply being overly focused on the tracks you performed. The more time spent mixing the same song, the easier it becomes for the mix engineer to now lose some objectivity as well in regards to overall balance, tone, and feel. A dedicated mastering engineer is that final set of "fresh ears" that can listen to the final mix and make adjustments based on what is needed.

Even in this late stage, the mastering engineer may still hear things within the stereo file that they cannot adequately address with mastering alone. It's not too uncommon for the mastering engineer to request specific changes to the final mix when those small changes can make a noticeably positive impact on the final result. For this reason, some mix engineers—including this one—will provide alternate versions of their final mix in anticipation of common scenarios. In addition to the primary mix, another version with the vocals slightly louder and another with the vocals slightly lower in the mix can be offered to the mastering engineer as the "Vocals Up" mix and "Vocals Down" mix, respectively. This gives the mastering engineer some readily available options, when needed.

The mastering engineer may also hear something that requires a more specific request: that the tambourine be lowered in the last chorus, or perhaps the low end on the piano part needs to be tamed. Again, as lines can often become blurred, the mix engineer may have used a noticeable saturation (coloring) effect on the entire mix to give it a more "mastered" sound that is now hindering the mastering engineer's best efforts and needs to be removed entirely. Obviously, these needs require your mix engineer to be able to easily recall the mix session data to make these specific changes, so the smaller the gap between the mixing and mastering sessions, the less likelihood of any delays and outright limitations to what the mastering engineer can work with. As with all other stages up to this point, have a plan in place and set reasonable expectations with everyone involved so that the song comes first.

Without over simplifying things, your mastering engineer is listening carefully to each recording to ensure the performance can be heard at its best—in a wide variety of listening environments.

Balance & Consistency



Without mastering, your song might sound great in the room where it was mixed but sound just awful when played in your car on the way home. Whether your song is heard on the club's massive sound system, your mom's kitchen radio, or your iPhone's earbuds, your song should translate well enough to keep the listener engaged. With multiple songs on an EP or full album, each individual song must work well on their own as well as being part of the collection. Much like the mix engineer mixes individual tracks to create the well-balanced song, the mastering engineer often "mixes" the individual songs to create the well-balanced album.

Every song on the EP or album should have a consistent sound and overall balance in common that confirms for your audience, "yes, all of these songs go together," especially when played in sequence.

Dynamics & Loudness

Without rehashing everything that has already been debated about *The Loudness Wars*, suffice it to say that the war is now (finally) over. Popular streaming platforms like YouTube, Apple Music, and Spotify all use some form of loudness equalization so that louder music is automatically turned down to make the listening experience more consistent and enjoyable for the listener from song to song. This means there is no advantage in cranking up your song's loudness level "to eleven" when these platforms will simply turn it

down again regardless. The listener is still free to turn the volume up or down as they please but simply trying to make your song "the loudest one" won't by itself attract any more attention. This is a good thing, as your music will always sound better when its dynamics (the range between the loudest and quietest parts) are preserved—even with hard-hitting styles of music.

When treated properly, loud music can still sound "loud" even when the volume is decreased. Listening at high volume levels is physically harmful to our ears and squashing all dynamics from your music creates listening fatigue, where we may like the music but just want to stop listening anyway. Good mixing and mastering engineers understand all of this and can work together to ensure the final version of your song accommodates the technical and musical goals to be met.



Sequence, Fades, and Gaps

If you are releasing more than just a single—an EP or a full album—the sequence of songs, the fades (in and out), and any gaps (or lack thereof) between the songs become part of the mastering process. Be sure your mastering engineer is given the correct order of songs, so everyone understands which song is first and which one comes next. This is very much a creative decision these days but with vinyl records there were once advantages to which song was played first, on the outer edges of the record, and which was last, with the needle spinning closer to the center of the record. You may want to consider this if you plan to release your music on vinyl in addition to digital platforms.

Does the song slowly fade out as the band continues to play, or does it ring out on the last note? Should it end abruptly? Elvis Presley's *Suspicious Minds* even features a faux fade, where the song starts to fade out but then comes back in again. When possible, the final mix should have some space before and after the music to leave any fading decisions to the mastering engineer who can better focus on these subtle nuances from song to song.

On the Queen album, *News of the World*, the song *We Will Rock You* is followed almost immediately by *We Are The Champions*. While likely destined to become a hit on its own, radio station DJs playing the first song just couldn't pick up the needle fast enough and had to let the second song play uninterrupted. Outside of foot-stomping sporting events, these songs are almost always played together as a set, even to this day.

It's worth stating that what goes to your mastering engineer is dependent upon all of the other stages that have built your song up to this point. Your mastering engineer can't always undo what was done by the mix engineer. Likewise, your mix engineer can't always undo what was recorded and your singer can't always undo the lyrics that were written during the songwriting phase.

With balance being a central theme, work hard to develop a workflow that ensures your creative decisions somehow balance intent with flexibility. This may sound nonsensical at first but it quickly comes into focus when your song is released and your audience is simply enjoying the music for a few minutes, without ever perceiving the *hours* that went into creating it. That is art.

Welcome Aboard and Rock On.

Epilogue

What Else?

I truly hope that even just a single sentence contained in this eBook can somehow help you move forward with your music—either through minor clarification or even through pure inspiration. As mentioned at the very beginning, the intent was not to provide a definitive guide of steps 1, 2, and 3, but rather to share a framework that helps you connect the broader dots in order to build a music-making workflow that makes sense for you and your musical goals.

With a clearer picture of the dots themselves, my hope is that you'll now have an easier time actually connecting them as you get back to making music.

So, what else is missing? What else do you find along your music-making journey that remains a mystery or creates frustration? I would love to hear from you as you move forward with creating new music with all of these ideas in mind. I certainly do not claim to have all of the answers but would just as certainly welcome the opportunity to help you find them, together. I'm looking forward to the conversation...



My goal is simply to help more people make more music more often.

Tell Me About Your Music!

I'm always glad to help answer any questions you have. Visit www.mixedbyrecio.com or email me at matt@mixedbyrecio.com

About the Author



I had an interest in music from an early age but never saw myself as a performer. Like many others, I had no clue that there were any other career choices within the music world, outside of playing on stage. With a similar interest in technology, I quickly discovered that using the available gadgets and their flashing lights to do something creative, like making music, was what I was really interested in learning. This was in the era of the Yamaha DX7, Linn drum machine, and early MIDI. Digital recording and the modern DAW were still years away from being available to the masses, so instead there was a basic sequencer and 4-track recording to cassette tapes.

All of this led me to Berklee, where I graduated from their Music Production & Engineering program in the early 1990's. Life happened. I cut my hair, took out my earring and found a "real job" to make ends meet.

After walking away from music for a very long time, I've returned to it once again with a renewed passion and a focus on mixing projects for independent artists and singer-songwriters. I am continuously amazed at how far the technology has come and how fast it continues to evolve, both because of and in spite of the music industry it helps to support. What remains a constant inspiration though is the amount of talent and creativity brought forth from the digital revolution and our love of music.

More musicians, of all skill levels and styles, now have access to more knowledge and tools than ever before. By working together, we can learn to use it better to make a positive difference through our collective passion for creating new music.

Anyway, that's my song. What's yours?

