

The Makings of an EP
From Silence to Portable Sounds

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A Senior Thesis submitted in partial fulfillment
of the requirements for graduation
in the Honors Program
Liberty University
Spring 2017

Acceptance of Senior Honors Thesis

This Senior Honors Thesis is accepted in partial fulfillment of the requirements for graduation from the Honors Program of Liberty University.

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Abstract

The creation of an EP is a process that requires skills in multiple areas. Once, creating an EP was only available to those who garnered resources and support from a record label.

However, an increasing number of aspiring musicians are writing, recording, and making their music available for download or purchase without the assistance of a record label.

Doing this successfully and excellently requires application of knowledge in areas such as literature, theology (for Christian artists), music theory, music technology, and marketing.

This thesis will describe one process used to turn inspiration into a tangible product that one can purchase and play. Beginning with the process of creating songs, this explanation will explore the recording and editing process utilizing music software and equipment, and will end with the distribution of the resulting audio tracks.

The Makings of an EP: From Silence to Portable Sounds

Introduction

An EP, short for “extended play,” is a collection of songs that consists of more than a single song but is considered too short to be a complete musical album, or “LP.” This thesis will provide an overview of the knowledge and skills necessary in order for an individual to successfully undergo the creation of an EP without the help of a record label. Typically, an EP includes four songs, and for a Christian songwriter they will utilize literary devices and music theory and will be filtered through a biblical worldview. After completion of these songs, the next step is to record them, using current recording technology and employing the best musicians available to bring the song to life. Next, it will be important to edit the resulting audio tracks to bring these to a place that is closer to professional studio quality. Presumably, as a result of all this time and energy, an aspiring musician will have a tangible product that one can download and listen to.

The first stage in the process of creating an EP begins in the mind. A song is composed of both lyrics and music, making a songwriter both a composer and a lyricist. As a lyricist, a songwriter pores over the words they write, ensuring they are communicating their message in the best way possible while also including a hook and memorable lines. According to one lyrical expert, “Much of lyric writing is technical... you must spend time on the technical areas of lyric writing, like rhyme, rhythm, contrast, balance, and repetition.”¹ One’s approach to elements such as rhyme, rhythm, and repetition can either contribute to or detract from the memorability and aural impression of the song. It is important for a lyricist to determine the rhyme scheme of the different sections of a song. Though there are a few exceptions to the rule, it is overall more beneficial to keep a consistent rhyme scheme

1. Pat Pattison, *Writing Better Lyrics*. 2nd ed. (Cincinnati, OH: Writer’s Digest, 2009), 3.

between the different verses of a song, though it is also advisable to ensure that if a song has different sections such as verses, a chorus, and a bridge that all of these sections are not necessarily comprised of the same rhyme scheme. One good example of consistent rhyme scheme would be the stanzas of a hymn. One might notice that these hymns are so easily remembered not only because of the consistent melody between the stanzas but also because of the rhyme scheme present throughout. The same can be applied to the idea of syllable count, meaning that there are the same numbers of syllables in corresponding lines of a song. Besides the technical aspect of lyric writing is the poetic aspect, which includes devices such as metaphor, simile, irony, personification, and other poetic devices. Metaphor is one tactic that is hugely successful and often leads to a great title for a song. For example, if one were writing a song about his or her childhood, it would most likely be wiser to entitle it “Fireflies” or some other metaphorical reference rather than simply “My Childhood.”

One facet that is very important for Christian songwriters is the filtering of the songs’ messages through a biblical worldview. In the world of Christian music, there are two approaches that one can take regarding this process: explicit and implicit. According to musician and author Arvin Reed, “art that is explicitly Christian speaks directly of the good news of Christ and the cross... aimed primarily at fellow Believers... its intent is clearly Christian, whether it is to praise God, edify the Church, or share Jesus,” while “art that is implicitly Christian doesn’t necessarily spell out the Four Spiritual Laws or the plan of salvation, but instead suggests a worldview that could come only from a Christian.”² Two examples exemplifying these approaches are “How Great Is Our God” by Chris Tomlin and “Dare You to Move” by Switchfoot. The former would be considered explicitly Christian,

2. Sterling, Robert, *The Craft of Christian Songwriting*. (Milwaukee, WI: Hal Leonard Publishing Company, 2009), 3.

clearly stating Christian truths in a direct manner, while the latter implies biblical principles through metaphors such as “redemption has stories to tell” and “salvation is here.”

According to survey studies, “music may evoke quite a wide range of affective states... happiness, calm, nostalgia, love, sadness, interest, hope, pleasure, excitement, and longing...”³ With this power to evoke emotion in mind, there are several musical elements that a songwriter should be aware of that affect how a listener perceives the song. First, any memorable song should have a “hook.” The hook of a song has been described as “the part(s) you remember after the song is over,” “the part that reaches out and grabs you,” “the part you can’t stop singing-even when the song is over,” “the part you can’t stop singing-even when you hate it,” and “the catchy repeated chorus.”⁴ Often, this hook is found to be in the last line of the chorus of the song, and it also often becomes the title. Tone painting is another important musical element, and is defined as: “the use of varying timbres and sound symbolism in creating musical effects especially in impressionistic composition or program music.” Composers should utilize melody to match what the lyrics are communicating, perhaps matching a line that speaks of the steps of a journey with a series of ascending pitches or landing on a higher pitch to emulate a cry of victory. One well-known example of tone painting in a musical piece is found in Handel’s *Messiah*. Perhaps the most popularized portion of this oratorio is the movement entitled “Hallelujah Chorus.” The use of a triumphant-sounding melody on the word “hallelujah” further lends to the message of the lyric. However, according to Jason Blume, it is also important to keep a melody simple and singable, because “[it is] easier for listeners to feel an emotional connection to a melody they

3. Diana Deutsch, *The Psychology of Music*, 3rd ed. (San Francisco, CA: Elsevier Inc., 2013), 606.

4. John Braheny, *The Craft and Business of Songwriting*, 3rd ed. (Cincinnati, OH: Writer’s Digest, 2008), 92.

can easily sing and retain.”⁵ Likewise, chord progressions can assist in communicating the tone of a song. A musician can paint a sad song with minor chords, as well as ending a song on a chord other than the tonic to match a story without a resolution. Experiments have shown that if one re-harmonizes popular songs such as “The Star-Spangled Banner,” changing formerly major chords to minor ones and adjusting the melody accordingly, the overall mood is perceived to be sad, dark, or sinister, while the original version would have been described as cheerful, victorious, or light.⁶ Through comparisons such as this we clearly see that the chordal undertones of a song greatly impact the aural message of the song. Once the music and lyrics of a song have been completely composed, the next step before capturing its sound is to arrange it. According to one music production guru:

There are two parts to an arrangement, the orchestration and the form or structure. Orchestration is the combination of instrumentation (analog and digital) and the way those instruments work together rhythmically, harmonically, and melodically... the structure of a recording is the combination of the underlying song form, additional elements, and the order in which they occur.⁷

When it comes to orchestration, most writers may have somewhat of an idea of what instruments they wish to use at the beginning of a song, but this should be decided during the arranging stage. The instruments used and where they are placed in the coming audio mix will affect the perceived genre of a song. These instruments and their rhythmic interplay will also affect the general “feel” of a song. For example, a song may sound nostalgic and sad when set to a piano and cello setting, but happy-go-lucky when set to fast-playing banjos and

5. Jason Blume. *6 Steps to Songwriting Success: The Comprehensive Guide to Writing and Marketing Hit Songs*. (New York, NY: Billboard Books, 2004), 104.

6. Chase Holfelder, “*The Star Spangled Banner*” (*MINOR KEY VERSION*) Accessed March 4, 2017, https://www.youtube.com/watch?v=M_PtnvVQhqA

7. Richard James Burgess. *The Art of Music Production: The Theory and Practice* (New York, NY: Oxford University Press, 2013), 95-96.

fiddles. It is also important that a songwriter has an idea of what each instrument will be doing within the team. Not every instrument needs to be playing the exact same rhythm; in fact, if they all were to do so, the listener would most likely be bored or frustrated listening to the song. Because a song typically stays the same tempo without, it will be up to certain instruments to contribute to the rhythmic and dynamic changes within its form to add interest as it progresses. The other component of arranging, form, refers to the order in which differing sections of a song are played. Songs have a variety of forms, such as “AAA,” or strophic form (consisting of verses only, i.e. hymns), ABA form (verse-chorus-verse), ABABCB form (verse-chorus-verse-chorus-bridge-chorus), and so on. Besides these major sections such as verse, chorus, and bridge are other components to a song such as introductions and interludes. These are common ways that an arranger can add a sense of cohesiveness to a song as well as a sense of the song moving forward. These instrumental motifs are often created to be as (or almost as) catchy as the chorus of a song so that when a listener hears an element such as the opening riff of Journey’s “Don’t Stop Believin’,” he or she knows exactly which song is to follow.

Once a writer has completed and arranged an original song, the next step is to create a demo of this song using a program such as Logic Pro X, a professional music production software. Knowing the tempo of a song will be important as one begins the recording process, especially if one is to record live audio tracks. There are several different forms of virtual instruments that one can use in a program like Logic. Software instruments are digital instruments programmed into the software that are created through capturing audio samples of actual instruments but are only able to closely resemble the sound of actual instruments. These software instruments can be used in conjunction with a MIDI enabled keyboard to

create audio tracks of your song. In this way, anyone who knows the basics of playing a piano or keyboard can create lines that sound like other instruments in the recording. These digital instruments span a wide variety of actual instruments, including percussion, strings, piano, orchestral, and world instruments. One benefit of using these digital instruments is that audio programmed in this way can be put into exact tempo automatically through a function called quantization. However, one should not overly utilize this feature, or else the effect may be an overly computerized and inauthentic-sounding track. In order to produce a more professional quality level EP, a songwriter should record live audio tracks of skilled musicians playing the instrumental lines of an original song if such musicians are available.

When making these recordings, certain instruments such as electric, acoustic, or bass guitar can be plugged directly into the interface and so avoid any outside noise because the system is relying directly on the notes and nuances being carried through the cable and into software such as Logic Pro X. However, other instruments (including vocals) will need to be recorded using microphones that are connected to the interface. When recording using a microphone, it is important to note the surrounding environment because residual noise other than the actual instrument will often contaminate the recording. Some choose to record in certain environments for artistic purposes, but the ideal location for capturing pure instrumental sound is usually in a closed area with sound treatment of some sort to ensure that noise occurring outside the enclosed space cannot be heard within the space. These live recordings should be performed in the intended tempo of the final product. Musicians and vocalists wear headphones that play already recorded tracks and/or a metronome click setting the tempo to ensure that they are playing in time. Headphone use is important (opposed to

playing these sounds through speakers) so that these other instruments or click are not captured by the microphone along with this new audio performance.

Vocalists are given the task of following a few additional guidelines when recording. When recording vocals, “the axis of the microphone should usually be pointed somewhere between the nose and mouth to pick up the complete sound of the voice.”⁸ The general rule of distance is for a vocalist to be 10-12” away from the microphone. Extra provisions should also be taken to reduce the effect of any popping or hissing sounds produced by the human voice, such as those caused by consonants such as “b,” “t,” “s,” and especially “p.” A recording engineer can prevent these sounds from being over-represented in a recording through the use of a pop filter, which helps to regulate these sounds so that they are captured by the recording but not exorbitantly. Programs such as Logic are armed with the capability of recording several “takes,” or tries of a particular portion of a song at the point which this section begins and then choosing which take is heard in the final rendition of the song.

Once all of the instrumental and vocal pieces of a song have been recorded and put into order of where they are placed in the song, the next step in creating an EP is to mix the captured audio. DAWs, or “digital audio workstations,” such as Pro Tools 12 offer many options for editing audio, including adding effects, mixing, and panning.⁹ Options for effects in these software programs often include reverb (or echo), tuning, and compression. Reverb effects such as Sound Designer allow an audio producer to adjust the level and parameters of sound reverberation to presets that mimic the reverberation that occurs in certain environments. Therefore, one can edit audio that was recorded in a small studio room to

8. *Microphone Techniques: Recording*. Shure Legendary Performance, Accessed February 9, 2017, http://cdn.shure.com/publication/upload/837/microphone_techniques_for_recording_english.pdf

9. Frank D. Cook, *Pro Tools 101: An Introduction to Pro Tools 11*. (Boston, MA: Avid Technology, 2014), 191.

sound as though it was recorded in a grand hall, and so on.¹⁰ Tuning effects can ensure that every note is adjusted to the exact pitch that was intended and does not sound sharp or flat. Compression is an effect typically used for vocals and alters the audio to sound both clearer and more “punchy.” Mixing is an important part of the audio editing (or producing) process and refers to adjusting the volume levels of the different instruments so that they are at the appropriate levels for the style of your song. Using this tool, the drum audio and other audio tracks can be made louder or softer. Finally, another important element to audio production is panning. Panning refers to the placement of audio tracks in the mix. In other words, panning is the process through which one can make it seem as though an instrument or vocalist is playing from the left, the middle, or the right. In conjunction with mixing, panning can help to place your instruments in the foreground, middleground, or background of the mix as well. This helps especially to add interest for those listening to your audio through headphones or multiple speakers. Once a song has been properly produced and has the appropriate audio effects, volume levels, and instrument placement, an EP creator is in possession of a completed audio track.

One step that is largely ignored or misunderstood by many beginner self-producers is mastering. Mastering is “the process of turning a collection of songs into a record and making them sound like they belong together by unifying their tone, volume, and timing (spacing between songs).”¹¹ This step is one that can keep listeners from having to readjust their volume between songs and make an amateur demo compilation sound much more like a professional record.

10. Nahmani, David. *Apple Pro Training Series: Logic Pro X*. (San Francisco, UK: Peachpit Press, 2014).

11. Bobby Owsinski, *The Music Producer’s Handbook*. (New York, NY: Hal Leonard Books, 2010), 188.

Before one is ready to distribute an original work, it is important to ensure that the song is properly copyrighted. A copyright is also known as “a limited duration monopoly.”¹² This means that for a set amount of time, there are certain rights that are only available to the copyright owner regarding a particular work for a certain amount of time. According to the Copyright Law of the United States, copyright protections cover “works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.”¹³

The copyrightable aspects of a song are the melody and the lyrics. For an aspiring songwriter, it is important to ensure that when writing a new song that one’s melody and lyrics do not resemble an already created work too closely. Having a seemingly identical melody or lyrical hook to an already released song can open an aspiring songwriter to the possibility of a lawsuit by the person who wrote the song that is being mimicked, whether the mimicry is intentional or not. While any original song that is made into tangible form is technically copyrighted, there are certain measures that a songwriter can take to further protect their intellectual property. One can register their work with the United States Copyright Office, a department of the Library of Congress. The steps required to do so can be found on the office’s website and must be completed in order for an individual to sue for infringement of their work. Songwriters that wish for extra protection of their exclusive right to publicly perform their works should register original songs with a performance rights

12. Donald S. Passman, *All You Need to Know About the Music Business*. (New York, NY: Rosetta Books, 2015), 209.

13. *Copyright Law of the United States*. United States Copyright Office, December 2017. <https://www.copyright.gov/title17/title17.pdf>

organization, also known as a PRO. The most popularized PRO's are ASCAP (short for American Society of Composers, Authors, and Publishers) and BMI (Broadcast Music, Incorporated), with another option being SESAC (which stands for Society of European Stage Authors and Composers). When one registers original songs with one of these organizations, not only will the organization assist in protecting public performance rights, but the PRO will also act as a middleman for issuing radio stations license to play an audio track of an original song and collect the royalties due to the composer of the song.

Once an aspiring songwriter or artist has written, recorded, mixed, mastered, and protected their songs accordingly, he or she is ready to distribute their EP. There are several different methods of distribution for audio tracks. These methods include physical and digital distribution. Physical distribution is often achieved in the form of burning the audio tracks onto CDs and distributing them in this form. Companies such as CD duplicators or distributors can be hired to perform this part of the process for customers with finished audio tracks. The other method of ensuring that others can access a songwriter's new songs is one that is rapidly growing in popularity. Digital downloads are quickly overtaking the physical CD market in prevalence and success. When a songwriter uploads original music for download onto websites such as SoundCloud, ReverbNation, or TuneCore, customers can purchase the songs with the click of a button.¹⁴ Songwriters may choose to make songs available for free download at the beginning of their musical career. However, songs can also be sold on a portion of these websites, with the digital distribution company taking a portion of the earnings for their services or charging user fees.

14. Ari Herstand, *Want To Know the Best Digital Music Distribution Company?* Accessed March 5, 2017.

Project Accessibility

Accompanying this paper is a CD containing the project portion of this thesis in the form of a four-song EP that was created according to the process described above.

Bibliography

- Blume, Jason. *6 Steps to Songwriting Success: The Comprehensive Guide to Writing and Marketing Hit Songs*. New York, NY: Billboard Books, 2004.
- Braheny, John. *The Craft and Business of Songwriting*. 3rd ed. Cincinnati, OH: Writer's Digest, 2008.
- Burgess, Richard James. *The Art of Music Production: The Theory and Practice*. New York: Oxford UP, 2013.
- Cook, Frank D. *Pro Tools 101: An Introduction to Pro Tools 11*. Boston, MA: Avid Technology, 2014.
- "Copyright Law of the United States," United States Copyright Office. Accessed December 2017. <https://www.copyright.gov/title17/title17.pdf>
- Deutsch, Diana. *The Psychology of Music*. 3rd ed. San Francisco, CA: Elsevier Inc., 2013.
- Herstand, Ari. *Want To Know the Best Digital Music Distribution Company?* Retrieved March 5, 2017, <http://www.digitalmusicnews.com/2014/05/29/digital-distribution-company-review/>
- "Microphone Techniques: Recording," Shure Legendary Performance. Accessed February 9, 2017. http://cdn.shure.com/publication/upload/837/microphone_techniques_for_recording_english.pdf.
- Nahmani, David. *Apple Pro Training Series: Logic Pro X*. San Francisco: Peachpit P, 2014.
- Owsinski, Bobby. *The Music Producer's Handbook*. New York: Hal Leonard Books, 2010, 188.
- Passman, Donald S. *All You Need to Know About the Music Business*. New York: Rosetta Books, 2015.
- Pattison, Pat. *Writing Better Lyrics*. 2nd ed. Cincinnati, OH: Writer's Digest, 2009.
- Sterling, Robert. *The Craft of Christian Songwriting*. Milwaukee, WI: Hal Leonard Publishing Company, 2009.