Singer-Songwriter meets Music Production and Studio Technology

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Bloomsbury Handbook for the Singer-Songwriter

Singer-Songwriter Meets Music Production and Studio Technology

by

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1 Introduction

Almost every singer-songwriter who aspires to make a living from their craft will be involved in the music recording and production process at some point in their career. Recorded music allows a musician to be able to promote their material remotely, opening up the opportunity of reaching a huge global audience. Recorded music also serves the reflective songwriting process itself and allows an artist to seek professional opportunities and showcase their capabilities to labels, managers and publishers. For professional artists, record production is a gateway to income and success that immediately adds the possibility of new revenue streams.

This chapter focuses on the music production process and a number of related aspects that a professional singer-songwriter can expect to encounter during their career. In particular, core studio production technologies are discussed, as well as opportunities to use music production techniques as an expanded toolset for songwriting itself. The concept of working with a specialist music producer is introduced, alongside common challenges of the recording process, such as critical appraisal and a quest for sonic perfection. Finally, the avenues for using recorded music as a core revenue stream for singer-songwriters are considered, in order to provide a framework for achieving sustainable success as a songwriter and recording artist.

2 Essential technical skills for singer-songwriters

Music production is itself an art form. Some musicians, however, struggle to understand studio technology and music production techniques, which can leave them frustrated by the process and the final recorded result. For artists who do not self-produce, collaborating with experts and specialists can bring invaluable contributions to their career trajectory. Nonetheless, those who do become proficient with studio technology have more opportunities for success and they open up the capability to evolve and grow artistically, especially as these technologies continue to evolve around them. The singer-songwriter is, perhaps, the type of artist who needs to directly engage with studio technology more than others. Unlike a band, whose members have complementary skills that enable them to perform the necessary musical parts, singer-songwriters often write music for multiple instruments that they cannot themselves play proficiently. For these artists, embracing studio technology can be liberating, enabling and, indeed, essential in order to realise their personal creative vision.

In order for singer-songwriters to promote their careers and enhance their career opportunities by distributing recordings of their music, it may be economically worthwhile to learn a number of key music production skills and technologies. It is not beyond the reach of most good musicians to create high quality demonstration recordings by employing a few simple techniques. It is, however, necessary to devote some time to assimilating these basic studio recording and mixing methodologies. For example, a singer-songwriter whose main instrument is the acoustic guitar will benefit from understanding how to use microphones effectively to record both their voice and instrument. As a simple example, the singer-songwriter may choose to record a passage of acoustic guitar into a digital audio workstation (DAW) — a personal computer with software installed specifically for recording and sequencing music (such as Avid Pro Tools, Apple Logic or Ableton Live). To record into the DAW, a microphone is required to convert acoustic pressure disturbances (i.e. the sound) generated by the guitar into an electric signal. Once the acoustic sound is converted into an electrical signal it can then be amplified by an electronic pre-amp circuit in order to raise the level of the signal sufficiently for it to be converted into digital data. An analogue-to-digital convertor unit (often

referred to as an ADC or 'digital audio interface') is required to convert the amplified electrical signal into the digital, or binary, data necessary for a DAW to capture, display and playback the recording. For a non-technical person, understanding how and why this all happens can be daunting, but in practice the recording process is made simple and relatively intuitive by computer technologies specifically designed for easy accessibility. The quality of the equipment does make a difference. A good microphone that is appropriate for the specific purpose along with a well-designed audio interface provide the basis for a clear, professional end result. There is no secret method for recording great music though; indeed Huber and Runstein promote the 'Good Rule', which quite simply states "good musician + good performance + good mic + good mic placement = good sound".[1]

There are some other basic parameters that can enhance or diminish the quality of a recording. One that is often poorly understood is gain control. Gain control is the managing of the signal level throughout the signal path. At each point in the signal chain the levels need to be optimized — not too loud and not too soft or, once the signal is electric rather than acoustic, not too high and not too low. For instance, a microphone will distort if it is placed too close to a sound source that exceeds the microphone's specifications. On the other hand, if the sound source is too quiet the microphone will pick up extraneous background noise and even its own internal noise. The same is true the entire way through the signal chain — in the mic-preamp, the ADC, within the DAW, the digital-to-analogue converter (DAC) on the way to the monitor amplifier and from the monitor amplifier to the monitor loudspeakers. If the equipment is good and each gain stage is optimized (not too high, not too low) it should be possible to make high-quality sound recordings.

There are many excellent publications with details of microphone types, audio technologies and recording tips, and of particular interest are those by Rumsey and McCormick,[2] Crich,[3] Owsinski,[4] and Savage.[5] Additionally these publications discuss MIDI (Musical Instrument Digital Interface) composition tools in valuable detail too, which can be of significant benefit to the singer-songwriter. It is beyond the scope of this chapter to discuss technologies and engineering terms in detail. Rather, the objective is to encourage readers to explore the more technical articles as their interest and

capabilities with studio engineering and/or music production develops. It should be said that technical perfection is not synonymous with good production; there are other factors at work. Notwithstanding, most tracks we think of as 'well produced' are also of a high, technical, recorded quality.

Returning to the example of a singer-songwriter-guitarist, a common approach to recording example songs (i.e. producing a 'demo recording') is for the artist to record a vocal performance that aligns with a previously recorded guitar track. Mixing desks and DAWs are equipped to allow the performer to hear back an accompanying piece of music on headphones while recording an additional audio track, so it is possible for a single artist to record many synchronous performances and layer up multiple instruments one-by-one.

Once all the recordings (or 'tracking') are complete, the audio performances need to be mixed together to achieve the highest quality sound possible and to best present the creative vision of the artist. The simplest and most powerful aspect of mixing is the 'balance', which simply refers to the relative volumes of the different instruments. If a guitar and voice are recorded well then simply playing the two recordings back at suitably chosen levels will give a good quality mix.

In addition to achieving a good balance between the instruments, mixers use a number of techniques to enhance and improve the raw recordings. Some simple techniques for enhancing acoustic recordings include compression, reverb, delay, and equalisation. Compression reduces the dynamic range of a vocal or instrument and makes them sound more present. Reverb and delay effects both add a sense of space and depth to the mix, whereas equalisation ensures that the levels of bass, middle and treble frequencies in the instruments and vocals are balanced and complementary within the mix. Furthermore, where multiple tracks have been recorded, panning can be used to position the various sounds to the left, right, or somewhere in-between in the stereo field, which can also add a dimension of space and width to the mix. As with recording, there are a number of excellent publications on mixdown techniques, particularly those of Case,[6] Owsinski,[7] Moylan[8] and Savage.[9] Many advanced mixing techniques are also available to the music producer, such as sound modulation, pitch

correction and various kinds of harmonic enhancement, although these can take some time to master. The more professional singer-songwriter might therefore employ a number of audio engineers to assist with the recording, mixing and mastering stages of a project, and some of these advanced approaches to music production will be discussed in greater detail later in the chapter.

The singer-songwriter not only needs to understand music production technologies, but also digital productivity tools that allow them to effectively manage and maximise their career potential. For example, many singer-songwriters work remotely from home studios, and when approached to collaborate with another artist or producer, they might need to exchange audio recordings and communicate ideas via the Internet. The autonomous and connected digital musician can build a sustainable career by collaborating remotely across the planet with musicians who never have to leave their home studios. Diverse creative technologies and those that support the creative industries are evolving evermore rapidly. Consequently, the creative community, particularly musicians and songwriters, need to embrace these advances to stay at the forefront of their industry and craft.

3 The studio as a tool for songwriting and composition

The recording studio has become an almost essential tool for the singer-songwriter and has come to be referred to as a 'musical instrument' and songwriting tool in its own right. The equipment and software that are nowadays ubiquitous in the recording studio provide a creative palette for musicians to develop, record, and fully realise their songs. Many solo musicians are multi-instrumentalists who record each instrument one-by-one to create the finished piece. With a little technical knowledge of recording techniques and relatively inexpensive studio equipment, a solo artist can nowadays produce completed songs independently. Some people think that performing while also being responsible for the recording of the performance (commonly referred to as 'engineering') can be challenging for one person to undertake. It is possible for a single person to have both artistic and engineering skills, however, the need to move regularly (mentally and physically) between creative and technical mind-sets can undermine the musical performance. For example, if a technical obstacle is encountered, the

disruption can easily break down any positive creative flow. For this reason many artists work in the studio with a specialist recording engineer who is responsible for all activities involved in the setup and recording of the performances.

There have been many successful examples of a singer-songwriter or solo artist working alongside a recording engineer to produce commercially successful albums. For instance: this was the way Dave Grohl recorded his first (self-titled) *Foo Fighters* album in 1994, as recounted by Brannigan.[10] With producer/engineer Barrett Jones, Grohl perfected a process that allowed him to perform and record all of the instruments and vocals on the final productions of his songs for which he had previously produced demo recordings:

> Start with the drums, listen to playback while humming tune in head to make sure arrangement is correct, put down two or three guitar tracks, do bass track and move on to the next song, saving vocals for last.[11]

In this way the entire album was recorded within a single week of studio time, as only Grohl and recording engineer Jones were needed for the tracking sessions. The speed with which Grohl completed the album was in large part because he had not only written his songs, finalised arrangements, melodies, and rhythmic structures but had also produced rough demo recordings prior to entering the recording studio to make the album.

The studio as 'musical instrument' generally refers to the act of entering the studio or beginning to record before any detailed songwriting or arrangements have taken place, meaning that the creative process is heavily influenced by the recording technology within the studio space. Brian Eno has particularly focused on the concept of the recording studio as a compositional tool and his 1975 album Another Green World was his first to be "composed almost completely in the confines of a recording studio".[12] Eno refers to the process of composing in the studio as

> working directly with sound, and there's no transmission loss between you and the sound…

It puts the composer in the identical position of the painter – he's working directly with the material, working directly onto a substance, and he always has the options to chop and change, to paint a bit out, add a piece, etc.[13]

Eno would therefore enter the recording studio with "rather a bare skeleton of the piece, or perhaps with nothing at all", meaning that all his decision-making was made during and after recordings had taken place, rather than before. The previous norm for bands and artists was that they would perfect a song in live performance or rehearsal before committing it to record. Additionally Eno's approach embraced the ideas of experimentation and that every recorded sound, either accidental or intended, could find its place in the finished piece. Sounds that were not chosen were simply deleted and replaced. It must be noted that this approach has its pitfalls: some artists can get lost in the production details rather than focusing on the quality of the song, which can result in an elaborate production but a weak song.

Imogen Heap is an innovative singer-songwriter who has used both approaches of writing in the studio and writing prior to entering the studio.[13] Heap engineered her own Grammy Award winning album *Ellipse* and explains that, having composed her first album *Speak For Yourself* within the studio, she was pleased to return to a more traditional approach for recording *Ellipse*:

> I wanted to get the songs written, because with the last record I wrote the album and produced it in tandem, and found myself in situations where I'd have a track pretty much done, then I'd have to crowbar in this melody and lyric over the top and end up stripping it all away anyway… (I wanted to) write the songs old□school style with the piano, and get them sounding good on their own.[14]

The process of songwriting in the studio is, therefore, a delicate one and one which may suit some artists more than others. In many respects the practice of composing prior to the studio and within the studio has become somewhat merged in recent years with the development of home studio technologies, which allow any musician to 'demo' their material before committing fully to the final

recording. Studio recordings are nowadays almost always used in the critical appraisal process and it is not uncommon for a song to be recorded a number of times before the artist finally feels like it has been perfected in terms of composition and/or sound. One key difference between Grohl and Eno's approach is the time allocated for reflection and decision-making — Grohl recorded demos with his own studio equipment before tracking the final performances some weeks later. Eno on the other hand utilised a more rapid reflective process, deciding which recordings to keep or delete in a relatively short timeframe.

Given the power of modern digital recording setups, a singer-songwriter can experiment with a number of composition and production approaches in a very short space of time. With a simple MIDI interface (a MIDI keyboard or electronic drum pad for example), it is possible to record sounds that can later be changed, enhanced, or replaced with real instruments. A songwriter can, for example, record a simple piano performance in MIDI and then adjust the notes afterwards so they appear perfectly in time and with the desired attack, sustain, and decay profiles. A novice musician can thus build, apparently, high quality studio performances. If a musician needs to, he or she can record musical sections separately, allowing complex musical performances to be built up in layers. Additionally, the piano can, at a later time, be changed to another sound all together such as a harpsichord, glockenspiel or MIDI string section. This introduces new production possibilities for the singer-songwriter. Having recorded an orchestral piece using just MIDI string samples, the artist could later hire professional session players to replace the MIDI sounds with real instruments. Similarly with percussion composition: it is not uncommon for a songwriter to programme a simple electronic drumbeat that will later be replaced by a session drummer. Of course, electronic drum sounds, in their own right, are extremely important in many musical genres, so it is a good idea for singer-songwriters to learn to programme electronic drum sounds and patterns using the latest software and hardware tools. It is also worth noting that many studio musicians have their own recording setups, and can share audio files over the Internet from remote physical locations. Professional music productions can therefore be made quickly and relatively inexpensively,

considering that there is no physical travel required, and much less studio setup time.

One of the most valuable aspects of using DAWs in the process of songwriting is the flexibility in experimenting with song structures. Digital audio workstations allow a songwriter to quickly record ideas and fragments that can then be looped, copied, cut, and pasted into longer sections such as intros, verses, B sections, choruses and bridges. These sections and parts of them can easily be moved around until the writer is satisfied with the song structure. Most DAWs allow both MIDI and audio tracks to be manipulated simultaneously making the process intuitive. This allows for an iterative approach to writing and simultaneous production that can continue through the final mix and even into the mastering phase of a project. For example, it is not uncommon for artists, writers, and/or producers, at a late stage in the production process, to cut out a lengthy third verse or, perhaps, loop additional choruses at the end to give a more impactful and hooky outro. These structural decisions can be 'prototyped' quickly if a song has been recorded to a consistent tempo. With some editing expertise and the flexibility of multi-track DAWs, it can be impossible for a listener to tell whether a song has been performed and recorded from start to finish or constructed piece-by-piece.

4 Working with music producers

4.1 The role of a music producer

A music producer's role can differ wildly from project to project, for different genres, and with different personalities. Burgess describes the many different types of music producer whose varied strengths can be characterised as creative auteur, technical enabler, direct collaborator, experienced consultant or a practical facilitator.[15] The producer's role in working with bands and ensembles often demands him or her to connect each musician's contribution together in the most complementary way to create a final track that is bigger than the sum of its parts. Producers are responsible for defining the approach to recording, meeting the brief of the record label with regard to the target market, and delivering a track that an audience will consume in vast quantities. Successful auteur producers, as described by Burgess, include Quincy Jones and Phil Spector.[16] Spector assumed responsibility for

all aspects of his productions from choosing the artists, musicians, background singers, arrangers, engineers, and studios, to participating in and overseeing the songwriting. He directed the recording process in the studio, often heavily editing the tracks post-recording and going back into the studio to overdub additional parts until he was satisfied that he had produced a hit. Spector also decided which records would be commercially released on his Philles Records label. In electronic genres, the producer may often also be the recording artist, or a creative and technical specialist who can utilise advanced production tools to design and capture the artist's desired sonic characteristics. Dr Dre, Timberland, and Dangermouse are successful electronic music producers who have worked as artists themselves and as collaborators with other artists. Successful producers take personal responsibility for the delivery and completion of the final recording, and directly or indirectly facilitate the entire recording process including arranging studio time, employing engineers, assistants, session musicians, and dealing with record labels and their artist and repertoire (A&R) representatives. A good producer shields their artists from the functional aspects of making a record to allow them to firmly focus on the creative and performance parameters.

Many successful singer-songwriters have forged long-lived collaborations with a music producer or multiple such relationships. These relationships are driven by the need for unique skills and attributes in the production process. In some cases, the singer-songwriter brings the writing and performance skills, while the producer focuses on capturing the artistic musical vision. Many producers will work with a singer-songwriter in the pre-production process, to assist with songwriting and song structures, and to help the artist fine-tune his or her vision for the recordings. Sometimes producers and singer-songwriters share responsibilities to the extent that they credit themselves as co-producers, and sometimes as co-writers. Some producers take an active role in the songwriting and/or arranging whereas others perform largely engineering functions and act as a reflective sounding board for the artist. Producer and artist may both contribute performances to the recordings, making a strong creative, technical and performance team.

Ken Scott engineered and produced many of David Bowie's early albums. Scott suggests that he and

Bowie worked well together because he didn't significantly challenge or interfere with Bowie's compositions or arrangements: "I felt the best bet was to sit back and make sure that he could do anything he wanted to do. He would create the brush strokes, and I would create the colors that he used".[17]

Phil Ramone produced and engineered many successful records with singer-songwriters such as Bob Dylan, Paul Simon, Ray Charles, and Billy Joel. Ramone produced eight studio albums with Billy Joel from 1977 – 1986 and he attributed much of their success to the smooth running of the studio sessions and the fun and humour that became part of the process.[17] Ramone was meticulous in scheduling meal breaks, creating rules for visitors to the studio, and imposing fines for tardiness. His attention to detail allowed the sessions to run smoothly and Billy Joel and his band to operate in a relaxed and collaborative manner: "What was most satisfying about the years I spent producing Billy Joel and his band was our camaraderie and the positive effect it had on our records".[18]

Despite their unquestionable friendship, Ramone still attributed his bond with artists such as Billy Joel as being "less about dialogue and more about results".[19] Phil Ramone clearly found the balance between professionalism and friendship in his relationships with his artists and, despite his 14 Grammy Awards, was always able to be humble in the presence of great artists and producers:

> The years I spent working with Paul Simon and Billy Joel taught me about how to work cooperatively with an artist who knows how to produce and where my own ego fits in…. taking a step back to remind yourself that all they want to do is make the best record possible is often helpful.[20]

Ramone's approach to collaboration epitomises the value in being diplomatic and kind in the studio and understanding how to get the best creativity and performances out of the artist.

In many instances the music producer can be employed to bring a specific sonic signature to a project, which could be a direction or sound that the artist or label wants to achieve. The collaboration between

producer Mark Ronson and singer-songwriter Amy Winehouse was underpinned by their love for very similar music from both modern and past eras. Their connection was clearly in their passion for both 60's soul music and modern electronic genres when recording Winehouse's Grammy winning album *Back To Black*.[21] Ronson and Winehouse captured a sound that was both modern and retro, fusing and utilising Ronson's DJ and sound engineering skills with their shared passion for soul music. Ronson's clear production style is evident on the record and, while collaborating, Ronson also contributed to co-writing the title track "Back To Black".

4.2 The commercial music production process

Every music production project is different and artists, producers, and engineers work with their own preferred approaches. However, when considering only singer-songwriter recording projects, there are sufficient similarities between them that it is possible to describe some common processes that will be relevant to most projects.

A recording project usually starts with songwriting and rehearsal, often referred to as pre-production. When songwriting, which involves developing initial ideas into a finished song, is conducted within the studio, this is still considered pre-production. Pre-production may also involve demo recording, so that the artist and producer can reflect on the songs and the songwriting over a period of time.[22] The demos may just be simple live renditions with voice and piano or guitar. The producer and songwriter might then decide on a final structure for the various parts of the song, the lyrics and the instrumentation, or orchestration, to be recorded. Variously defined, pre-production is an essential part of the production process and it can often be necessary to run these sessions in a relaxed environment with a small team: often just the artist and the producer. If the songwriter intends to record songs with a full backing band, then, once the songs are written, it may be worth organising some rehearsal sessions so that the performers are aware of the songs and arrangements. This allows the, more expensive, time in the recording studio to be spent focussing specifically on the feeling or vibe of the performances. Prior to about 1980 and with large orchestral sessions, pre-production might

involve meeting with an arranger and discussing arrangement and orchestration ideas. Because of the expense of hiring them, top studio musicians are rarely hired to do rehearsal sessions. However, they are capable of reading an arranger/orchestrator's parts to a very high standard, and/or taking instructions from the arranger, producer, and artist, as well as listening to the other musicians, and can thus capture the perfect performance and vibe within the first few takes without prior rehearsal.

The music producer will develop a plan for taking the songs from simple demos to fully produced recordings. Generally this involves three consecutive processes—tracking, mixing and mastering. Tracking might involve a live ensemble performing at once, or different instruments being recorded separately. In general, larger studio spaces are only needed for live band ensembles, recording drums, or string sections and orchestras. It is not uncommon for drums to be recorded in a professional studio space and for the singer-songwriter to then revert to a project or home studio setup to overdub additional instruments and vocals. Session musicians and electronic programmers can be used to ensure a full palette of sounds and performances for the final mix stage. Some producers like to track more material than is necessary and then make the final arrangement decisions at the mixing stage. Others prefer the arrangement and a sound close to that of the final mix to emerge while tracking. During the tracking process the producer and recording engineer might manipulate the recordings to remove any unwanted noises, to 'comp' vocal takes together and to experiment with audio effects and MIDI sounds. Some producers leave much of the clean-up processes for the mix engineer, which does not usually make the mix engineer happy. In any event, before going to the final mix a (variously named) 'tracking, board, console, or rough mix' is usually created, which should give the producer, artist, and mixer some indication of the way the final production will or should sound.

When tracking is completed, the recordings are often forwarded to a specialist mix engineer who will manipulate and enhance the recorded audio to make it sound as clear, powerful, and relevant as possible for the intended audience. Depending on the producer and the label's desires, some mix engineers add sounds and effects to subtly enhance the finished product, whereas others add their own more dramatic, artistic interpretation to the song. Mix engineers are specialists who are familiar

with the various analogue and digital tools available and how to use them to achieve the desired sonic characteristics. Mix engineer Phil Harding mastered the art of mixing to a deadline and a brief. He recounts programming and mixing Bananarama's song *"Venus"* with the same specific techniques that were used previously on Dead Or Alive's records in order to find a new and exciting twist to their record: "Within 12 hours we had turned Bananarama into a female Dead or Alive and the record was huge everywhere".[23]

Mixes are usually shared with the artist and the producer who then comment and request changes until everyone is satisfied. The mix process can be delicate and mix engineers are employed for their personal approach and style. A benefit in using a specialist mix engineer is that it allows an extra set of professional ears to contribute to the project and allows the producer to maintain a broad overview of the songs, rather than getting distracted by any technicalities of the mix tasks. Mix engineers are often asked to supply the various submixes or 'stems' that most labels now require and this is quite a time consuming process. Despite George Massenburg describing mixing well-recorded songs as a "simple" task,[24] Ramone describes the mix engineer as "the star of the record-making process" and proclaims that "great records aren't recorded, they're mixed".[25] It must be said that this is a typically self-effacing comment by Ramone whose engineering skills were of the highest standard and it is worth noting that a poorly recorded track is one that is difficult to mix well.

Once the mixes are complete, the songs are sent to a specialist mastering-engineer to be mastered. Mastering is regarded as the final creative process in the music production chain and also acts as a final quality control process before the songs are made commercially available for sale or broadcast.[26] The mastering engineer can modify, compress, and equalise the spectral balance, tighten and refine low, middle, or high frequency sounds and manipulate the stereo width and density of tracks. These processes all allow the music to be brought to a comparable contemporary standard to that of similar current releases. During mastering the engineer also looks at the sound qualities and levels of all the tracks on an album and ensures that the complete product is cohesive, sonically consistent, and representative of the artistic vision. The mastering engineer will also insert silence between tracks,

digitally remove any undesired noise, and encode the UPC (Universal Product Code) and ISRC (International Standard Recording Code) data. The mastering engineers then prepare final masters as wave (WAV) and MP3 audio files as well as the standard DDP (disc description protocol) image, which can be used by CD manufacturing plants.[27]

In recent years there has been a tendency for mastering engineers to make songs louder and louder by adding high levels of dynamic-range compression or limiting to a track. This has become known as 'the loudness war', as reported in detail by Katz amongst others.[28] A number of research studies have highlighted the effects of applying heavy compression at the final mastering stage, which show that unpleasant, fatiguing and heavily distorted audio is the result – even though louder tracks might have a more immediate impact on first listen.[29] [30] [31] The loudness war, described in detail by Milner,[32] rages on, though in recent years broadcast technologies and listener preferences have changed somewhat in favor of celebrating more dynamic music.

Once the master files have been reviewed and all parties have 'signed-off' on them, the record is ready to be manufactured onto CD and/or vinyl, and prepared for digital distribution through online digital stores and aggregators.

5 The quest for perfection

Knowing when a recording project is complete can be a significant challenge. There are many ways to evaluate the 'quality' of a music recording, though none more than a direct reflection on whether a recording truly represents the sonic 'vision' or expectation of the artist or songwriter. Some artists may have a signature sound or one of an idol that they are trying to mimic, or there may be technical aspects that have to meet a desired quality threshold – such as the frequency balance of a piano recording, or the 'punchiness' of a drum set, or the personal characteristics or nuances of a singer's voice which emphasise unique or delicate features. Perhaps more importantly, singer-songwriters and music producers should consider the recorded song as a whole artefact. They should ask themselves whether it tells the intended story through its chords, melodies, lyrics, arrangement, and orchestration.

They should also listen to see if they have created strong enough hooks and emotive motifs to intrigue and grab the attention of listeners.

Poor recording and production practices can under-represent a good song. There are many philosophies on how to create the ideal environment to achieve the greatest possible performance from a singer or musician. Different performers respond to different environments; many singers prefer to work later in the day when their voices have warmed up. Others like to have as few people as possible in the recording studio. For example, The Pretenders singer Chrissie Hynde was known for needing to emotionally build up to a vocal performance in the studio. As reported by recording engineer Steve Churchyard:

> When it came to her vocals, Chrissie was great so long as nobody else was in the room… Only Chris Thomas (the producer) and myself were in the control room while Chrissie sang, and he'd have to coax a performance out of her. Chris was all about that. On a vocal day we might sit around for hours and drink tea and have lunch and chat about everything other than what we were about to do, and then at a certain point — which was part of Chris's gift as a producer — he would say 'OK, how about now?'[33]

The quest for the perfect take can often overlook valuable unexpected qualities of performance anomalies. While fundamentally aiming for a perfect performance, mistakes and nuances are often accepted and embraced by highly successful singer-songwriters and producers. This may be because these imperfections enhance or highlight the personality of the artist or their performance attributes, or the fact that emotion and performance delivery is sometimes more important than perfection of pitch or timing. For example, Phil Ramone noted with reference to Billy Joel: "There was seldom any fixing or polishing on Billy's records; if there were minor flaws in the performance, they stayed in".[34]

Mixing can also be a delicate process with an often-undefined endpoint and a process that is likely to encounter compromises. As discussed by Toulson "All mix processes add something to enhance the audio, but often take something unnoticed away, perhaps adding small delays or noise, or reducing

the clarity of the top end".[35] Indicating that, during mixing, it is possible to arrive at point of trade-off, where any further mix enhancements will inevitably involve a reduction of impact of some other aspect of the song. The person in control of the mix process therefore needs a clear understanding of the final goal for the song, and to be able to identify when the mix is finished or as good as it can possibly be.

This is a challenging and fearful time for many artists. The point of no return – as once the mix is signed-off and sent for mastering, it is hard (if not impossible), and certainly more expensive and time-consuming to go back and make further changes. It is not uncommon for artists at this stage to question if the sound is good enough, loud enough, or creative enough for its intended audience to value and enjoy. There is a delicate balance between perfectionism and fear of failure, which, undoubtedly, are both capable of driving a project successfully forwards and halting it in its tracks. Indeed many singer-songwriters and performers often feel dissatisfied with the studio experience, as it is never quite capable of recreating the exact experience of a live performance. Blier-Carruthers has researched extensively on the subject of perfectionism and the process of recording in classical music and has observed that performers regularly exhibit

> distrust of the technology, dislike of the process, doubts about whether you like what is captured, disillusionment with the editing process, the thought of your performance going somewhere where you are no longer in control of it, the thought of a disembodied performance existing at all.[36]

Perhaps some of the most well-known singer-songwriters have been able to be so successful with their songs and music because they were able to let go of perfectionism and the fear associated with failure. In the case of the Beatles, recording engineer Ken Scott indicated that John Lennon and Paul McCartney had quite different attitudes. Describing Lennon, Scott is quoted as saying "As a musician, he'd get bored easily. He certainly wasn't a perfectionist. He wanted it the way he wanted it, but that wasn't always sort of perfection".[36] Whereas in relation to McCartney, Scott describes: "He is a

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perfectionist. He will keep going on something and will belabour a point quite often, whereas John would be, "Yea, that's good enough, let's move on." "[37]

6 Developing a sustainable career through recorded music

Recorded music provides a singer-songwriter with a powerful method of interacting with their fans and a valuable potential revenue stream. There are many ways in which singer-songwriters can use their recorded music assets to both promote their personal 'brand' and acquire essential income through direct sale and licensing. At an early career stage, generating a large and active audience is more important than revenues, as audience development is a pathway to large future revenue streams and a sustainable career. Particularly, given recent declines in the direct revenue from music sales, Goldstein conjectures "the future of revenue for recorded music isn't going to come from selling music to consumers — it will come from selling music audiences to advertisers." [38]

Building an audience and gaining the participation of that audience is of great benefit to the singer-songwriter. Radio airplay is still a major asset for generating new audiences and showcasing work to people looking to discover new music. Additionally, social networks such as YouTube, Facebook, Twitter and Instagram are currently essential communication tools for musicians and songwriters. Once a sizeable audience is in place, there are a number of ways to monetise that audience. It is possible to sell music through specialist online stores; Bandcamp in particular facilitates a number of strategies for musicians to sell their recordings (for example, direct sale, 'name your price' and artist subscriptions). Additionally it is possible to have short runs of CDs and vinyl records produced that can be sold by mail order through an artist's own online store and at live gigs. Royalty payments can also be received from streaming music service providers, such as Spotify or Deezer.

To sell digital downloads through the Apple iTunes (and other online download stores), an artist will need to work with a digital aggregator who will deliver the music for sale. Three such aggregators who work with independent artists are Ditto Music, AWAL, and CD Baby. Additionally, if a singer-songwriter can record his or her songs, this opens up opportunities for generating income through

music syncing with films, TV shows, and advertisements, as well as through writing and producing music for computer games and corporate films. In many cases, accessing the opportunities for earning sync royalties for music is best done through a publisher that will promote a songwriter's work to creative and media agencies, in return for a share of earnings. For sync work, many agencies will be keen to have access to instrumental versions of original music. Therefore, at the point of final mixing, it is always worth mixing down an instrumental version in addition to the full and final mix of a song.

Essentially, a music publisher's job is to represent the songwriter (or songwriters) of a written piece of music and associated lyrics, to generate revenue from that copyright material.[39] Most commonly, in legal terms, a song is considered to be made up of the music, lyrics and arrangement.[40] The music is defined by the melody, which is the rhythmical sequence of notes, the lyrics are the words sung within the music, and the arrangement is the chord progression, the harmonies, the rhythm and specific sequence of parts that comprise the song. All three elements can be assigned a copyright if they constitute an original piece of work. Where there are multiple songwriters, it is always wise to define the percentage of contributions (in writing) at the time of writing or finishing the song. This is to avoid later disagreements and legal challenges over the split of royalties.

Copyright collection agencies or performing rights organizations (PROs) represent songwriters and copyright holders also. They collect royalties from performances (on radio and anywhere that plays recorded music) and 'mechanical' royalties (from sales of physical goods such as CDs, and digital downloads). In the UK, the Performing Rights Society (PRS) collect royalties for its members whenever their material is played or performed on radio or TV, used online, performed live or otherwise played in public. Organisations that play music to the public and hold live music events are required to have a PRS license and report the music they play, so that royalties can be calculated and distributed correctly to the copyright owners. In the US, the performing rights organisations ASCAP, BMI and SESAC perform a similar function.

The Mechanical Copyright Protection Service (MCPS) licenses and collects royalties for copyright

songs (lyrics and music) for uses of 'mechanical' forms of the copyright material in the U.K. Other countries have similar agencies, with Harry Fox being the US mechanical copyright collection society. The MCPS and other similar agencies are therefore authorised to issue licenses for companies to sell mechanical copies of recorded music to the public. Record companies who wish to sell physical or digital copies of these songs must agree to pay a license fee to do so. The MCPS collects the mechanical royalties for these sales and, after subtracting a small administrative fee, distributes the income to the copyright holders. Different forms of mechanical use command different royalty percentages, for example the MCPS collects 6.5% of the retail price for CDs and vinyl LPs.

There are two copyrights in every sound recording which songwriters and performance artists should be aware of and recognize the separate and distinct values in each. The two copyrights being that of the song and that of the sound recording itself. A record label makes agreements with artists to record their performances and to commercially release those sound recordings. Usually, the recording agreement with the artist assigns the rights to those specific recordings to the record company. This allows the label to use those recordings to generate income through direct and indirect music sales to the public. They also have the right to exploit the use of the recordings, and through use in other outlets, such as interactive and non-interactive digital streaming serviced, for radio broadcast and for licensing for use in film, TV, computer games, and for advertising purposes. Historically, record labels did not own the copyrights in any part of the songs unless they struck a separate deal for the publishing. The advent of the '360 deal' changed this insofar as record companies who use those will own contractually defined portions of all, or many, sources of revenue that accrue to the recording artist, including publishing.[41] Many labels therefore nowadays also own their own publishing companies. The terms of recording contracts are negotiable and extremely variable but most grant a royalty on sales and it is common for companies to offer an advance against those royalties, whilst keeping a record of all costs. Additionally, in order to enhance sales of the recordings, the label will often fund promotion and marketing of the recorded music and sometimes a live tour. There are other kinds of deals such as cash buy-outs or work-made-for-hire. These are generally to be avoided except

in the case of a commissioned work (such as some for a film or TV) where the buyer is specifically defining the parameters of the music and the buy-out price is sufficient to justify the lack of future royalties.

The royalties that accrue due to performances of the sound recording itself (as distinct from the song) are collected by another PRO. In the UK this PRO is called PPL (Phonographic Performance Limited) and in the US it is SoundExchange. They claim royalties for specific pieces of recorded music that are played in public, on radio, TV, on the web and on satellite radio. This performance royalty is completely separate from the songwriter royalties that are claimed by PRS, ASCAP, BMI etc. The PPL issues licenses to businesses that play recorded music. PPL collect fees, which are distributed to its members – i.e. the performers on and the owners of the sound recording. The money claimed by the PPL is split between the recording rights holder (the record label) and the performers who contributed to the recording, usually as a 50% split for each. If there is more than one performer listed on the recording, the performer royalties are calculated from a bespoke share agreement or from the PPL's Performance Allocation Policy.[42] SoundExchange collects performance royalties similarly from satellite radio, webcasts etc. under the Digital Millennium Copyright Act (DMCA). Unfortunately, the US has no similar legislation that requires a royalty to be paid by terrestrial radio nor does it have any agreement with businesses that use music. This creates an anomalous situation in the US where songwriters and publishers get paid for some uses of music but performers and producers do not. Organisations such as the American Association for Independent Music (A2IM), The Recording Academy, the RIAA, AFM, AFTRA and musicFIRST have been lobbying for many years to get this anomaly rectified, though with no success at the time of writing in 2016.

It is worth noting at this point that producers are paid via contractual agreement. In the UK this agreement is with the record label and in the US it is with the artist. In both instances the money comes from the artists' share. In very general terms, the producer contract defines where the money will come from, how much it will be, and who will pay for what. The contract encompasses what the producers' deliverables are, for example: how many sound recordings he or she will produce, when

they will be completed and delivered, and there will be some requirement as to the technical (and sometimes the commercial) quality of those recordings. The agreement will define credits, how much the producer will be paid (usually as an advance) and what their royalty percentage will be from the sales and use of the recordings. In the US, it is necessary to have a letter of direction (LOD) from the artist instructing the record label to subtract the producer's royalty from the artist's and to pay it directly to the producer.

Accessing and understanding the experts in all aspects of the commercial music industry takes time and commitment for any artist or songwriter. In the UK, societies including the Musicians Union (MU), the British Academy of Songwriters, Musicians and Artists (BASCA), the Music Producers Guild (MPG), the Association of Independent Music (AIM), as well as the PPL and PRS too, all hold valuable networking events for their members which encourage collaboration and sharing of opportunities. Likewise in the US the American Association for Independent Music (A2IM), The Recording Academy, the RIAA, AFM, AFTRA, ASCAP, BMI, SESAC, and the NMPA all offer various opportunities for networking, to better understand the industry, and ways to help improve conditions for performers, producers, and songwriters as well as record labels and publishers.

7 Conclusion

This chapter has aimed to explore professional approaches to music production with respect to singer-songwriters. The benefits for singer-songwriters to produce recorded music are discussed, as well as the key technologies and challenges that might be encountered through either working autonomously or with a team of professional music producers and sound engineers. The role of music production technology in the songwriting process is highlighted as a key benefit for the creative process itself. Critical appraisal of recorded music is a key to learning and development, allowing a singer-songwriter to reflect on their wiring and performance in a new way. However, it is seen that in many cases this can bring challenges too, particularly with respect to perfection from both a sonic and performance viewpoint. The value of recorded music is discussed and the potential for reaching

worldwide audiences is highlighted as a key benefit. With the help of the organisations who govern the royalties associated with recorded music, it is possible for a singer-songwriter to find specific channels of opportunity in the commercial music industry and develop successful and sustainable revenue streams and rewarding careers.

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