THE DFENDERS:

An Analysis of the Studio Production Process

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ABSTRACT

A brief discussion of recording concepts as proposed by composer/producer Brian Eno prefaces an in-depth examination of the recording techniques used to produce *The DFenders*, an album of original ‘Eighties-esque’ pop songs. Drawing on a number of notable pop/rock musicians from the Eighties, particularly New Wave artists, *The DFenders* utilises vintage equipment and recording techniques to produce a ‘retro’ pop album in the modern day recording studio.
ACKNOWLEDGEMENTS

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FOREWORD

As one of the first candidates to submit a Masters in Studio Production at Otago University, I had the unique opportunity to work together with my lecturers to define the course’s emergent focus and develop it as a distinct and viable academic pursuit. Traditionally, the Masters qualification has been divided into two disciplines within the contemporary rock framework: composition and performance. Recently, however, it has been proposed that a third discipline worthy of academic study may be found in the contemporary rock context – that of studio recording. What makes this subject of studio production a significant candidate for study at Masters Level is that while it incorporates elements of both compositional and performance practices, it also introduces aspects utterly unique to the recorded medium. For this reason I approached the undertaking of this project not from a compositional or performance standpoint, but rather by focusing primarily on the process of studio recording, and identifying the co-dependent relationship that exists between the three disciplines.

To understand the distinctions between composition, performance and studio production more fully, first this paper will examine the impact that the recording process has had on music performance. It should be noted that this paper is not concerned with the technological, historical or social implications of recording music, but rather with the musical implications of recording music. For this reason this essay will not endeavour to timeline the evolution of recording in any detail, but rather concentrate on how the concept of recording influences composition and performance both prior to and during the recording process. To achieve this I will draw heavily on the theory of noted composer/producer Brian Eno that the studio can be regarded as a compositional tool in itself.
The Studio As Compositional Tool

In a lecture delivered at the first New Music America Festival in 1979, Brian Eno addressed the notion that the studio can be utilised as a compositional tool as well as simply a means of capturing a performance.¹ He began his lecture stating:

“The first thing about recording is that it makes repeatable what was otherwise transient and ephemeral. Music, until about 1900, was an event that was perceived in a particular situation, and that disappeared when it was finished. There was no way of actually hearing that piece again, identically, and there was no way of knowing whether your perception was telling you it was different or it was different the second time you heard it … The effect of recording is that it takes music out of the time dimension and puts it in the space dimension. As soon as you do that, you’re in a position of being able to listen again and again to a performance, to become familiar with details you most certainly had missed the first time through…”²

In these statements already the difference between the live performance and the studio performance can be seen. The live performance is varied each time it is heard while the recorded performance, once captured, is the same every time. While this in itself may seem an inconsequential difference, it does illustrate an important relationship between performance and composition in the recording environment: when something is committed to tape it invariably becomes part of the work’s composition.³ Eno elaborates on this notion by discussing the recording of improvised jazz:

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¹ Brian Eno. ‘Pro Session: The Studio as Compositional Tool.’ Lecture delivered at New Music New York (the first New Music America Festival). Published in Down Beat vol. 50, No. 7/8, July/August, 1983. Taken from http://www.moredarkthanshark.org/eno_int_db-jul83.html. [Accessed 21/11/07].
² Eno. ‘The Studio as Compositional Tool.’
³ NB. ‘Committing to tape’ is used here as a colloquialism that refers to recording in general, not specifically to using actual tape in the studio.
“Jazz in an improvised form, primarily, and the interesting thing about improvisations is that they become more interesting as you listen to them more times. What seemed like an almost arbitrary collision of events comes to seem very meaningful on relistening… jazz was, from 1925 onwards, a recorded medium, and from ’35 onwards I guess … it was a medium that most people received via records. So they were listening to things that were once only improvisations for many hundreds of times, and they were hearing these details as being compositionally significant.”

This example demonstrates the dependence that the studio production has on both performance and composition, and yet shows how it can still be regarded as a separate entity with its own specific considerations: a work may be composed a certain way for live performance, yet will always be altered in the studio, whether the details are intentionally refined beforehand, or unintentionally committed to tape in a particular way during the recording process.

Eno adds a further dimension to the role of composition in recording by introducing the concept of ‘in-studio composition.’ He traces the origins of ‘in-studio composition’ to the evolution of recording technology, from single-track to stereo and to three-track recording and beyond:

“Initially tape recording was a single track, all the information contained and already mixed together on that one track. Then in the mid-’50s experiments were starting with stereo, which was not significantly different. The only difference was that you had two microphones pointing to your ensemble, and you had some impression of a real acoustic sound came to you from two different sources as you listened. Then came three-track recording; it allowed the option of adding another voice or putting a string section on, or something like that. Now this is a significant step, I think; it’s the first time it was acknowledged that the performance isn’t

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4 Eno. “The Studio as Compositional Tool.”
the finished item, and that the work can be added to in the control room or in the studio itself."

It is within this concept of ‘in-studio composition’ that the studio production takes on a life of its own, independent of the original composition or performance. No longer is the recording process simply a means of capturing a live performance or refining particular details of a composition, but rather of creating wholly new music that may never have been intended for the piece at its inception. At this point the relationship of co-dependency between composition/performance and studio production is evident: what has been committed to tape in the studio may now be added to the original composition as a necessary component, and may also be recreated in the live performance; the studio production now influences the original two components used to create it in the first place.

Eno takes the idea one step further by discussing practices of ‘in-studio composition’ where “you no longer come to the studio with a conception of the finished piece. Instead, you come with actually rather a bare skeleton of the piece, or perhaps with nothing at all.” Herein lies the crux of the argument that the field of studio production warrants its own study outside, or at the very least alongside, the parameters of composition or performance – the creation of a piece of music within the studio environment is approached differently than traditional composition or live performance, and should therefore be regarded as such. Eno describes the primary difference as ‘no transmission loss’ between the composer and the sound:

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5 Eno. ‘The Studio as Composition Tool.’
6 Eno. ‘The Studio as Compositional Tool.’
“… the transmission intervals in a classical sequence: the composer writes a piece of music in a language that might not be adequate to his ideas … he has to, in fact, use a language that, like all languages, will shape what he wants to do. Of course, any good composer understands that and works within that framework of limitations… this arrives at a conductor… and if he isn’t in contact with the composer, his job is to make an interpretation of it… then the conductor has the job of getting a group of probably intransigent musicians to follow his instructions… that’s three transmission losses. I’d argue there is another one in the performance of the piece: since you’re not making a record, you’re not working in terms of a controlled acoustic, and you’re not working in a medium that is quite so predictable as a record.”

This passage offers a number of ideas that will help define the parameters of studio production: no compositional limitations, no transmission loss between the composer’s vision and the finished sound, and the construction of music within a controlled acoustic. A fourth consideration may also be added to this list: no sonic or textural limitations. As Eno later states, “one thing I said about the traditional composer was that he worked with a finite set of possibilities; that is, he knew what an orchestra was composed of, and what those things sounded like, within a range… it’s nothing like the range of sounds that’s possible once electronics enter the picture.”

Thus the field of studio production is differentiated from the traditional disciplines of composition and performance while still maintaining a connection between the three areas on some levels. Four key characteristics of the studio production that can be used in the creation of an original studio work are identified: no limitation on the compositional aspect of the music, no limitation on the sounds used in the finished product, no transmission loss between the unrealized and realized music, and the ability to control all aspects of the recording process, including the acoustic space.

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7 Eno. “The Studio as Compositional Tool.”  
8 Eno. “The Studio as Compositional Tool.”
On review of these characteristics, it initially seems that the field of studio production is virtually impossible to pursue academically due to the lack of restrictions – how can a project be researched, completed and assessed without a framework within which to work? This paper argues that quantifiable restrictions occur when putting the four theoretical characteristics into practice. True, there are no limitations on composition when working in the studio environment, away from the constraints of traditional notation systems; however, transferring the composition from the imagination to the recording console requires a certain degree of musical and technological knowledge, prompting an amendment to one of the characteristics of studio production: no transmission loss between the unrealized and realized music providing the composer has adequate abilities to transmit the music in the first place. The composer needs to know what sounds he is actually hearing in his head, and also how to create those sounds in the physical world.

Further, the ability to control all aspects of the recording process, including the acoustic space, is also a theoretical attribute which, when put into practice, can create a variety of problems that need to be solved. The level of control is dependent on the equipment, environment and persons involved in the recording process, some aspects of which can be easily managed, and some of which cannot.

From these concepts a core challenge of the studio production emerges: managing transmission loss between unrealized and realized music. The studio performer acknowledges that transmission loss is inevitable during the recording process, but takes steps to minimize that loss. Throughout my studio recording project The DFenders I have attempted to employ the concepts of in-studio composition and managing transmission loss, all the while working to specific stylistic considerations (discussed later in the section entitled ‘Eighties-esque’).
The main focus of my recording project is a CD of ten original songs performed by my band *The DFenders*. The four principal members of the band are: myself (chief songwriter and synthesizers), Luke Herlihy (lead vocalist, secondary songwriter and bass guitar), Michael Carter (rhythm and lead guitars), and Matthew Taine (drums). For this assignment, in the interest of minimising transmission loss, I also enlisted the help of session musicians:  Rob Burns (bass guitar), Marcel Rodeka (drums), John Egenes (Dobro), and Paul Young (saxophone).

Of the ten original compositions put forward on *The DFenders* album, seven were written solely by myself (*I Want To) Do It Tonight, I Like The Girls, She’s Never Gonna Be The One, Signs, Good Is Good (Bad Is Better), If You Were Gone, and (*I Don’t Want To) Break Your Heart Tonight*), one was written solely by Luke Herlihy (*Jamie’s Sister*), and two were collaborative efforts by Luke and myself (*Girl Next Door* and *Gipsytown*). By including a secondary songwriter in the compositional process I took the concept of managing transmission loss one step further, challenging myself to not only translate my ideas onto tape but also to interpret the ideas of someone else. It was also with these co-written tracks that I found myself executing the most ‘in-studio composition,’ adding my own elements to what were essentially just structural frameworks of songs.
‘Eighties-esque’

Riding on the wave of ‘retro’ bands such as The Killers and The Darkness, I decided to emulate the sound of a past era, dubbing the genre in which I would create my work as ‘Eighties-esque.’ Defining the characteristics of any genre is nearly impossible as many styles of music cross over. Therefore, for the purposes of this assignment, I have formulated certain parameters that I consider to be embodiments of the ‘Eighties-esque’ sound. As the primary aim of this project is the creation of a musical work within the studio environment, I have used the ‘Eighties-esque’ style as merely a reference point for comparison of production and recording techniques and innovations, not compositional or performance techniques being employed at the time (although, in most instances, I have strived to emulate these practices as closely as possible to preserve the authenticity of the finished recording).

The majority of my inspiration was drawn from bands and solo artists that were most active during the period from the late Seventies into the early Nineties, as well as a few from more recent years. For the most part, the focus of this assignment is on commercially successful pop/rock artists from the ‘Eighties’ period, as well as on artists classified as ‘New Wave,’ a style of pop music that emerged in the late Seventies and went on to play an important role in shaping the sound of the Eighties.

New Wave

An offshoot of the punk movement of the Seventies, New Wave paradoxically married punk’s anti-conformist attitude towards overproduced manufactured pop with sophisticated and commercially viable songwriting. As Lawrence Grossberg
describes in his article ‘Another Boring Day in Paradise: Rock and Roll and the Empowerment of Everyday Life:’ “… new wave rock seeks to reaffirm pleasure as resistance but cannot escape its own desire for commercial and popular success, and thus, its own complicity with the dominant culture.” New Wave evolved in the Eighties, retaining the simplistic, edgy performance components of punk music while simultaneously experimenting with electronic elements not traditionally associated with punk bands, and refining production techniques to create a less-noisy, slicker sound. New Wave bands also adopted a distinct look that mirrored the sound they were creating: they wore slick suits and ties, yet kept their ‘rock-and-roll’ sunglasses and hairstyles. In this way, New Wave became the ultimate eclectic genre, incorporating elements from all areas of the musical spectrum.

**Digital Technology and MIDI**

Another factor of Eighties studio production that influenced my ‘Eighties-esque’ style was the evolution of the recording studio from analogue to digital and the advent of MIDI (Musical Instrument Digital Interface) technology. First proposed in 1981, MIDI offered a solution to the issue of incompatibility between electronic instruments and computer systems. Simply put, MIDI allows musical events to be programmed into a computer and then replayed as audio through an electronic instrument, such as a synthesizer. This allows precise information to be sequenced such as tempo, velocity (volume), and even particular electronic timbres (synthesizer patches), and also makes possible the playing of otherwise impossible musical patterns. In this way, MIDI

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10 Post-Punk also evolved as a style at the same time, but was used to describe darker, less pop-influenced bands.
technology plays a significant role in realizing the concept of ‘no compositional limitations’ by removing the restrictions of human ability.

The use of MIDI technology features heavily throughout *The DFenders*, most notably in the songs *She’s Never Gonna Be The One* and *If You Were Gone*, which were recorded almost wholly with synthesizers programmed with MIDI information. MIDI was also used to trigger synth snare sounds in most of the songs, which were then mixed with the live drums to produce the ‘exploding snare’ sound heard on the record.
NOTABLE INFLUENCES

Having grown up listening to music from the Seventies and Eighties, I invariably drew inspiration from numerous bands and solo artists from various genres. However, there were a few principal influences that were significant in shaping the sound of *The DFenders* album.


**Principal Members:** Ric Ocasek (lead vocals, backing vocals, rhythm guitar), Benjamin Orr (lead vocals, backing vocals, bass guitar), Elliot Easton (lead & rhythm guitars, backing vocals) Greg Hawkes (synthesizers, percussion, saxophone, backing vocals), David Robinson (drums, percussion, backing vocals)

Formed in 1977, The Cars helped shape the sound of New Wave with their heavy use of synthesizers as a main textural component in their songwriting (as opposed to featuring the synthesizer simply as a ‘decoration’ within a song), a proclivity for ostinato quaver-beat rhythmic patterns (a practice inherited from punk music), and, in the case of lead vocalist Ric Ocasek, the employment of vocal melody lines that tended more towards speaking rather than singing (also inherited from punk and glam styles). The Cars’ music lay at the crossroads of pop commercialism, punk rebellion, and complex songwriting: catchy pop riffs blended with challenging melodic experimentation, and straightforward punk performance styles blended with slick studio production.
“Huey Lewis & The News” (1978-present)

**Principal Members:** Huey Lewis (lead vocals, harmonica), Sean Hopper (keyboards, synthesizers, backing vocals), Bill Gibson (drums, percussion, backing vocals), Johnny Colla (saxophone, guitar, backing vocals), Mario Cipollina (bass guitar), Chris Hayes (guitar, backing vocals), Tower of Power Horn Section

Although not traditionally classified as a New Wave band, Huey Lewis & The News embody many of the characteristics exhibited by New Wave acts: they combine rock, blues, country and electronic elements to create an eclectic style of pop music, they demonstrate a sophistication of songwriting, and their songs are commercially produced while at the same time retaining an essence of the raw performance in the recordings. Like The Cars, Huey Lewis & The News utilise the synthesizer as an important compositional tool, and also experiment with other instruments in their arrangements such as harmonica, saxophone and full horn sections.

“The Knack” (1978-present)

**Principal Members:** Doug Fieger (lead vocals, guitar), Berton Averre (guitar, backing vocals), Prescott Niles (bass guitar, backing vocals), Bruce Gary (drums, percussion)

The Knack are another notable influence on *The DFenders*, particularly with their 1979 hit *My Sharona*. Although the instrumental line up of The Knack does not feature a synthesizer, the band’s commercially viable punk ethos, the sophisticated structural framework of their songwriting, and their ‘Beatles-esque’ clean-cut image
affirm their New Wave classification. Also, the sometimes misogynistic lyrical content of their songs contrasts with their neat physical appearance and shows yet another example of how seemingly disparate elements combine under the New Wave title.

Comparison Works

Throughout the recording process I consulted a number of comparison works to help monitor the level of transmission loss between my unrealized and realized musical pieces (these comparison works function as a sort of guideline to determine how well I was able to translate ideas from my imagination to the recording console). It should be noted that these comparison works are simply a starting point for monitoring transmission loss: each track on The DFenders album is still an original composition produced to my personal tastes, and some production techniques and compositional components are of my own invention.

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<tr>
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<th>Comparison Works</th>
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</tr>
<tr>
<td>I Like The Girls</td>
<td>Just What I Needed by The Cars, Living On A Prayer by Bon Jovi</td>
</tr>
<tr>
<td>She’s Never Gonna Be The One</td>
<td>Drive by The Cars, Lady In Red by Chris de Burgh</td>
</tr>
<tr>
<td>Girl Next Door</td>
<td>The Heart of Rock and Roll and The Power of Love by Huey Lewis &amp; The News</td>
</tr>
<tr>
<td>Jamie’s Sister</td>
<td>Summer of ’69 by Bryan Adams</td>
</tr>
<tr>
<td>Signs</td>
<td>My Best Friend’s Girl by The Cars</td>
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<td>Good Is Good (Bad Is Better)</td>
<td>Paranoid by Black Sabbath, My Sharona by The Knack</td>
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<td>Gypsytown</td>
<td>You Make Loving Fun by The Knack</td>
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<tr>
<td>If You Were Gone</td>
<td>Heartbeat City by Fleetwood Mac</td>
</tr>
<tr>
<td>(I Don’t Want To) Break Your Heart Tonight</td>
<td>Tonight She Comes by The Cars</td>
</tr>
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THE RECORDING PROCESS

Pre-Production

The first step in undertaking this project was compiling the album’s tracklist. I decided to limit the tracklist to ten songs in the tradition of retro albums being generally shorter and more succinct than modern pop albums. The ten songs, while composed independent of this project over the past two years, seemed to fit together and flow in a logical order. I tried to pace the album by separating the faster and slower tempo songs, and by not weighting either the first or second half with too many of what I consider the “hit songs.” While there is a thematic thread that winds through the lyrical content of the album, the tracklist is in no way chronological, and the only deliberate ordering is the book-ending of the tracklist with similarly titled songs ((I Want To) Do It Tonight and ((I Don’t Want To) Break Your Heart Tonight).

The songs were recorded in a ‘layered’ fashion as opposed to recording all the elements at once – the bass and drums were recorded first along with a guide vocal, the guitar overdubs were added next, and finally the synthesizers and vocals (lead and backing) were added in the last stages of the recording process. Because the recording was ‘layered,’ scheduling was not as much of an issue as it may have been if all the players were needed at the same time. It also meant that I was able to utilise time in between recording sessions to pre-mix the tracks and experiment with different effects and sounds, continuously shaping the pieces as I went rather than simply trying to alter the final mix.

I recruited two session musicians to perform the bass and drum tracks (Rob Burns and Marcel Rodeka respectively), supplying them with chord charts for each track
(see Fig. 1) and coaching them through the structure of the songs during the actual recording. Both Rob and Marcel each have decades of playing experience (live and in the recording environment), and with both of them thoroughly familiar with Eighties music it was relatively easy to translate my ideas to them.\textsuperscript{11} The DFenders’ guitarist Mike Carter performed the guitar overdubs, using his knowledge of the live performance versions of the songs coupled with instructions from me during the recording process rather than using chord charts. Similarly, Luke Herlihy recorded the vocals without the use of charts. I performed the synthesizer parts myself towards the end of the recording process.

The area of pre-production that I found most challenging was time management – trying to estimate how much time the project would require, and subsequently booking enough time in the recording studio to complete everything. This was made more difficult as I was sharing the recording time available with ten other students undertaking similar projects. I managed to resolve this issue by leaving much of my final editing and mixing until everyone else had finished their assignments, as I had an extra four months before my project was due.

\textsuperscript{11} Rob has worked with many successful international musicians from the early Seventies through to the late Nineties, such as Isaac Hayes, Edwin Starr, Pete Townsend, and Eric Burdon, and has composed advertising music for MTV (the iconic music television channel first aired in 1981) in the late Eighties. Marcel has also worked with a number of successful recording artists since the Seventies, and has supported Queen, Joan Armatrading, and Chris Rea in live performance throughout the Eighties.
**Technical Information**

In the interest of reducing transmission loss as much as possible, I researched various *Mix Magazine* and *Sound On Sound Magazine* articles to get an idea of what gear was being used by artists in the Eighties, and then tried to source similar equipment through the University.

Below is a table of the basic set-up I used for all the tracks:

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<th>Instrument</th>
<th>Microphones Used</th>
<th>Effects Processing Used In Recording</th>
</tr>
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<tbody>
<tr>
<td>Drums</td>
<td>Kick: AKG D112</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Snare top: Shure SM57</td>
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</tr>
<tr>
<td></td>
<td>Snare bottom: Shure SM57</td>
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</tr>
<tr>
<td></td>
<td>Hi-hats: Beyerdynamic</td>
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<tr>
<td></td>
<td>Hi-tom: Shure SM57</td>
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<tr>
<td></td>
<td>Mid-tom: Shure SM57</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Lo-tom: Shure SM57</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Overheads (L+R): Rode NT3</td>
<td>None</td>
</tr>
<tr>
<td>Bass guitar</td>
<td>Direct input with Behringer Ultra-DI</td>
<td>None</td>
</tr>
<tr>
<td>Electric guitars (Paul Reed Smith Custom 22, Fender Stratocaster)</td>
<td>Carr Slant 6V Amp: close-miked with Shure SM57</td>
<td>Boss NS-2 noise suppressor</td>
</tr>
<tr>
<td></td>
<td>Room ambience: Rode NT1000, Neumann TLM 49</td>
<td>Boss BD-2 Blues Driver</td>
</tr>
<tr>
<td>Synthesizers (Roland RS-5, Roland RS-9, Roland Juno-60, Roland RD-700SX)</td>
<td>Direct input into desk</td>
<td>Ibanez CS9 Stereo Chorus</td>
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<tr>
<td></td>
<td></td>
<td>Ibanez AD9 Analog Delay</td>
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<tr>
<td></td>
<td></td>
<td>Korg DT10 Tuner</td>
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<tr>
<td></td>
<td></td>
<td>Dunlop Crybaby Wah</td>
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<td>Hammond Organ, Yamaha Electone Organ</td>
<td>Rode NT1000</td>
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</tr>
<tr>
<td>Lead vocals</td>
<td>Neumann TLM 49</td>
<td>Ibanez DM-1000 Digital Delay</td>
</tr>
<tr>
<td>Backing vocals</td>
<td>Shure SM-57</td>
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</tr>
<tr>
<td>Tambourine</td>
<td>Neumann TLM 49</td>
<td>None</td>
</tr>
<tr>
<td>Saxophone</td>
<td>Shure SM-57</td>
<td>None</td>
</tr>
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THE SONGS

(I Want To) Do It Tonight

Musical Description: The first song composed for The DFenders album, (I Want To) Do It Tonight spins a tale of teenage lust, taking its cue from the classic hit Paradise By The Dashboard Light by Meat Loaf. In the tradition of 80s songs like Kenny Loggins’ Footloose or George Harrison’s Got My Mind Set On You, the upbeat ‘kick + snare’ drum pattern of the opening bars provides the first recognizable component of the song, while the octave bassline is an obvious reference to The Knack’s My Sharona.

The tonic centre of the song is E-major, but the verse begins with the relative major chord C#-major. This tonal ambiguity underpins a stuttering vocal delivery of the verse lyric, which helps to depict the main character’s hesitant/shy personality. At the start of the prechorus, however, the harmony shifts to C#-minor as the main character’s partner makes her sexual advance, the minor colouring highlighting the anxiety felt by the main character.

A noteworthy feature is the bar between the prechorus and chorus, which interrupts the rhythm of the song and makes the start of the chorus feel like it has arrived too soon – a musical representation of ‘premature ejaculation.’

The chorus affirms the tonic key with a strong progression in E-major (I-IV-ii-V-I) as the partner’s confident, domineering personality is exhibited. The second verse

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12 A practice borrowed from songs like The Who’s My Generation and Bachman Turner Overdrive’s You Ain’t Seen Nothing Yet.
returns to the harmonically unstable progression of the start as the main character resumes his narration. The prechorus and chorus follow as per before.

The instrumental bridge section repeats the verse chord pattern starting on F♯-major. The organ solo is comprised of variations on a repeated three-note theme: C♯-D♯-F♯. This forms a principal recurring motif throughout the album (5–6–1). The instrumental section leads into another prechorus and is followed by 4 bars of solo guitar. This passage provides the first example of a recurring trait on the album: a key change up a major second in the final choruses of a song.

After a chorus in F♯-major the music subsides leaving the drums playing the ‘kick + snare’ pattern from the beginning for 8 bars. Finally, the song moves into the outro or coda chord progression, which is derived from the earlier three-note organ solo motif: F♯-D♯-C♯ or 1–6–5. As a further unifying feature the organ also starts playing the original repeated C♯-D♯-F♯ motif over the chords.

**Technical Description:** As mentioned in the previous section, the bass and drums were recorded first along with a guide vocal. In an attempt to control the acoustic recording space the drums were set up in a small, padded room to eliminate as much of the room reverb as possible, while the bass was recorded through the DI-box from the control room.

*As (I Want To) Do It Tonight* was so heavily influenced by the song *My Sharona*, I sought out an article that detailed how that classic track was recorded, specifically what microphones were used to capture the guitar overdubs and vocals. In ‘Classic Tracks: The Knack *My Sharona*’ by Richard Buskin, engineer David Tickle describes
close-miking the guitar amps with a Shure SM57, and setting up a Neumann U67 about a foot away to capture the room ambience. Following this example, I close-miked Mike Carter’s guitar amp with an SM57 and used a Neumann TLM 49 for the room microphone (being the closest equivalent available to me at the time).

The Hammond organ was miked with a Rode NT1000, shockmounted about half a foot away from the organ’s speaker cabinet. The organ solo overdub is a synth patch called ‘Surf’s Up’ found on the Roland RD-700SX electric piano.

Finally, the vocals were captured using the Neumann TLM 49. According to Buskin’s article, The Knack used Neumann U47 tube microphones for their vocals, and, after some research, I learned that the TLM 49, while not a tube microphone, uses the same K47 capsule as the U47. Therefore, while not able to employ exactly the same technology as was used by my comparison artist, I was able to compromise with a similar model microphone.

I Like The Girls

Musical Description: I Like The Girls is built heavily on the muted guitar sound of songs like The Cars’ Just What I Needed and Let’s Go. Similarly, the talkbox effect on the main riff is borrowed from Let’s Go.

The verse progression identifies the song’s tonal centre of G-mixolydian (I♭VII-IV-V). The harmony shifts to the relative minor (E-minor) at the start of the prechorus, and returns to G in the chorus. The chorus riff, voiced by the synth, is a

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variation of the opening talkbox riff. The chorus chords are also roughly based on the three-note motif: G-major – D-major – E-minor – B-minor (1 - 5 - 6 - 3). This chord sequence recurs frequently throughout The DFenders.

The final choruses are, again, transposed up a major second to A-mixolydian, prepared at the end of the solo section by the applied dominant E-major. In the second half of the last choruses the guitar introduces a ‘gallop’ rhythmic pattern which appears later in the album as well: ▶️ ▶️ ▶️ ▶️. The ‘gallop’ pattern is used simply for variation and to build to the song’s final climax.

**Technical Description:** *I Like The Girls* was recorded during the same session as *(I Want To) Do It Tonight*, so the bass and drums set-up was exactly the same as described above. The guitar amp was miked in similar fashion as well, although varying levels of distortion were used for different parts of the song. The “rev me up” guitar effect was created during the recording process by manipulating the delay pedal, increasing and decreasing the rate of delay to generate the modulating effect.

The synths were recorded directly into the mixing console, the ostinato synth bass programmed using Pro Tools’ MIDI capabilities.

*She’s Never Gonna Be The One*

**Musical Description:** The first of the two ‘ballads,’ *She’s Never Gonna Be The One* captures the lush, synthesizer-rich textures of songs like *Drive* by The Cars or *Lady In Red* by Chris de Burgh. The recurring three-note motif identified earlier
comprises the principal melody as played by the synth bell instrument – a repeated G-A-C in C-major (♯5 - ♯6 - 1).

In similar fashion to *I Like The Girls*, the prechorus harmony shifts to the relative minor, A-minor. The three-note melody continues through the prechorus but appears in a varied form: B-C-E in A-minor or ♯2 - 3 - ♯5. There is also a suspended E in the harmony (A-minor, G6, Fmaj7, G6), the pandiatonic chords diminishing tension as the lyrics describe the desirable aspects of the girl in question. However, the harmony changes subtly right before the chorus, the G6 being played as a straight G-major triad on the line “there’s something you should know.” The strong V-I cadence back to the tonic C-major in the chorus reaffirms the distinction between the ‘dreamy fantasy’ of desire and the ‘hard reality’ that “she’s never gonna be the one.”

Once again there is a major second key change for the final chorus repeats, shifting the tonic centre to D-major. The saxophone solo over the fade-out is a significant stylistic feature that appears in the recording, as the band line-up does not typically include a saxophonist. The song originally featured an extended guitar solo over the final choruses, but was changed in-studio when the opportunity to work with a local saxophonist became available.

**Technical Description:** This song was recorded differently from the previous two as the only live instruments are backing guitar and saxophone. Mike played guitar along to a rough guide track I compiled on my home computer. Then I layered the rest of the instruments, starting with the synth drums and bass and adding the various
pads and synth voices afterwards. This song is the first on the album to showcase the Roland Juno-60 synthesizer, an early Eighties polyphonic synth (see Fig. 2).

The vocals were recorded using the Neumann TLM 49. I was unsure about how best to record the saxophone, so I did some research to find out how some other artists went about recording their instruments. I found an article on the band Tower of Power (which acted as the horn section for a number of Huey Lewis & The News songs) that said they used a Neumann U67 on their sax in the song What Is Hip? 14 Again, not having the exact technology available to me, I compromised and used the Neumann TLM 49 to capture the sax for She’s Never Gonna Be The One.

Safe Sax

Musical Description: Safe Sax is the uncredited vignette that appears at the end of She’s Never Gonna Be The One. In keeping with the idea that this album was to be a unified project and not simply a collection of songs, I came up with the idea of including a vignette of some sort that somehow linked two songs. I wrote the dialogue between the boy and girl as a kind of homage to the spoken introduction to Meat Loaf’s You Took The Words Right Out Of My Mouth, and decided to add the saxophone phrases as a musical link between She’s Never Gonna Be The One and Girl Next Door (the two tracks on the album that feature the sax). The sax phrases are musically representative of sexual intercourse: the timbre is raunchy, the phrases are improvised, and the final phrase is cut short unintentionally.

Technical Description: The four sax phrases were completely improvised in the studio, with the vocal snippets being recorded separately and spliced together later. Vocals and sax were both captured using the Neumann TLM 49.

Girl Next Door

Musical Description: The first of two co-written songs, Girl Next Door is essentially constructed in two parts: the introduction sequence (also the bridge) and the main body of the song. The introduction passage is based on a sequence of fourths (F-major – C-major; G-major – D-major; A-major – E-major), the E-major being prolonged at the end of the intro for a perfect cadence onto the A at the start of the verse.

The verse is comprised of three repeated phrases (the descending bassline A-G♯-F♯) and a tag at the end, B-major (V/V) to E-major (V). Over the E-major chord the sax and vocals introduce one of the song’s hooks, which is loosely derived from the three-note motif described previously – C♯-B-A or 6♯-5♯-4 in E.

Unlike its predecessors, Girl Next Door does not shift to the relative minor in the prechorus, but rather to the minor third C♯-minor. The harmony changes slightly just before the chorus with a G-major chord, shifting the tonic centre from A-major to A-mixolydian. The bVII functions as a dominant chord, pushing the harmony towards the A-major chord at the start of the chorus. In the chorus progression we find a C♯-major chord imported into the key of A-major, creating a stepwise motion within the harmony: the notes E (fifth of A-major), F (third of C♯) and F♯ (third of D).
After repeats of the verse, prechorus and chorus the song returns to the introductory passage, which now functions as the bridge. Coming out of the bridge into the verse chord progression is the saxophone solo, which again is a feature not usually exhibited in the live performance. The inclusion of a sax solo in this song was due to the stylistic similarities to songs by Huey Lewis & The News, which frequently feature horn sections and saxophone as lead instruments.

*Girl Next Door* is one of the few songs that does not modulate up a major second in the final choruses. Instead, the song builds to its climax by repeating the chorus three times, starting with drums and vocals only and adding more instruments each repeat. The sax takes the lead for the final chorus, replacing the vocal melody line. The song ends with the first opening fourth pattern from the introduction, F-major – C-major.

**Technical Description:** Recording set-up for *Girl Next Door* was virtually identical to the previous three songs: drums and bass were recorded first, guitar was recorded next with close and ambient amp-miking, synths were recorded directly into the desk, and the sax and vocals were captured with the Neumann TLM 49.

**Jamie’s Sister**

**Musical Description:** Written by lead singer Luke Herlihy, *Jamie’s Sister* exhibits a number of traits previously identified in DFenders songs: the opening guitar riff is based on the three-note motif 5-6-1\textsuperscript{♭}, or A-B-D in D-major; the
prechorus begins in the relative minor, B-minor; and the final choruses modulate up a major second to E-major. The guitar also reiterates the ‘gallop’ rhythmic pattern from *I Like The Girls* in the final chorus repeat.

The lascivious vocal effects heard during the synth solo were added during a latter stage of the recording process and illustrate another example of in-studio composition.

**Technical Description:** As per usual, the drums and bass were recorded first, along with a rough guide vocal. Originally, we recorded the guitar live and close-miked the amp with an SM57. However, on playback, the tone lacked the appropriate harsh treble quality heard on the finished recording. To remedy this, we rerecorded the guitar directly into the desk, and then used an amp model program in Logic (see Fig. 3) to digitally shape the tone with the sought after level of high-end distortion. The synths and vocals were recorded as per previous instances.

*Signs*

**Musical Description:** The slide acoustic guitar in the opening bars of *Signs* demonstrates another example of in-studio composition. In the live performance the opening guitar riff is played on muted electric guitar, and that was originally how I planned the introduction for the recorded version. However, Luke had his acoustic guitar at the studio for recording *Gypsys town* overdubs, and once we started messing around with the slide I had the idea to replace the electric guitar at the start of *Signs*. We encountered a problem with recording, though, as the slide on the metal strings
created a lot of unwanted noise when Luke changed chords. To get around this we recorded the phrase in two halves, eliminating the need to change chord, and hard-panned the guitar left and right in the stereo image to reduce the obviousness that the phrase was not played as a whole.

The verse moves through a progression in E-major, and the prechorus progression confirms the tonic centre with a ii-IV-ii-V-I cadential figure. The chorus chord progression is a variation of the *I Like The Girls* sequence: E-major – B-major – C♯-minor – A-major or 1-5-6-4. The final choruses are also transposed up a major second in keeping with the common characteristic of DFenders’ songs.

**Technical Description:** The drums and bass were recorded along with a scratch guitar track. The acoustic slide guitar was recorded with the Neumann TLM 49, as were the vocals and tambourine. The electric guitars were recorded with close and ambient amp-miking, and the synths were recorded directly.

**Good Is Good (Bad Is Better)**

**Musical Description:** *Good Is Good* started life as a two-chord song, verse and chorus being based around I-♭VII progressions in E-mixolydian. From this point came the idea of centring the song around tones and semi-tones. The prechorus shifts to B-major and then moves through a series of semi-tones to get back to E-major in the chorus. In the chorus we also find a ♭VI (C-major) chord, which resides a tone away from the ♭VII D-major.
The entire first half of the song up until the guitar solo functions as an extended dominant, cadencing onto the A-major at the start of the solo section. The solo passage confirms this shift to A-major with a strong I-V-IV-V-I progression.

**Technical Description:** Recording set-up for *Good Is Good* was virtually identical to previous songs: drums and bass recorded first, guitar recorded next with close and ambient amp-miking, synths recorded directly into the desk, and vocals captured using the Neumann TLM 49.

**Gypsytown**

**Musical Description:** The second co-written track on the album, *Gypsytown* was composed by Luke Herlihy and arranged for recording by myself. Originally, the song was presented to me as an acoustic guitar and vocal demo, featuring an expanded two-bar riff (which I condensed into the single-bar ostinato harpsichord figure heard on the recording). Using the bare structure of the song as a starting point I was able to experiment with different arrangements of instruments, particularly with instruments not used to much extent elsewhere on the album, specifically acoustic guitar, organ, and electric piano. In keeping with the subject matter of the lyric, I chose instruments that were more organic and ‘folksy’ (in comparison to the rest of the album, which is dominated by electronic instruments). The Dobro was added after the initial arrangement and recording and, like the saxophone in *She’s Never Gonna Be The One*
and *Girl Next Door*, is another example of a compositional element unique to the recorded version of the song.

**Technical Description:** The ostinato harpsichord pattern was programmed into the synth using MIDI technology, and this provided the base track to which the drums were recorded. The bass was recorded next, being played through an amp that was close and ambient-miked, again to give the recording a more organic feel.

The acoustic guitar, Dobro, tambourine and vocals were captured using the Neumann TLM 49. The Yamaha Electone organ was miked with the Rode NT1000, shockmounted about a foot away from the speaker cabinet. The synths and electric piano were recorded directly into the mixing desk.

*If You Were Gone*

**Musical Description:** The second ‘ballad’ on the album, *If You Were Gone* was created entirely from programmed synthesizers (apart, obviously, from the vocals), and emulates the dark synth textures of songs like The Cars’ *Drive* and *Heartbeat City*. The song begins in D-major, and the introduction moves through the chorus chord progression I-iii-I-iii-I-iii-vi. The verse follows a similar chord progression, but substitutes a strong cadential V (A-major) chord for the vi leading into the chorus.

The bridge modulates to the bVII C-major, and moves through a chord progression similar to the verse, but with the added IV (F-major): I-iii-I-iii-I-iii-IV-V. The V in C-major (G-major) also functions as a IV in D-major and provides a plagal cadence
back to the chorus progression. The final choruses are transposed up a major second to E-major, and the coda reiterates the introduction in this new key.

**Technical Description:** All the synth patches were created on the Roland RS-9 and were recorded directly into the mixing console, the keyboard being sequenced with Pro Tools’ MIDI capabilities. The vocals were recorded with the Neumann TLM 49.

*(I Don’t Want To) Break Your Heart Tonight*

**Musical Description:** The closing track of *The DFenders* album, *(I Don’t Want To) Break Your Heart Tonight* is another track that features a specific recording arrangement differing from the live performance. Originally, the song included electric guitar throughout, playing palm-muted quaver patterns in the verse and full chords in the chorus. However, upon review, I decided to drop the guitar altogether because it was too ‘heavy’ for the emotional lyric (except for the guitar harmonic ‘solo,’ which is a defining feature of the song).

The song starts with some synth effects created with the Roland Juno-60. The chorus follows and establishes the tonic centre of D-major with the progression I-V-iii-IV-I. The verse progression is similar, but substitutes a iv (B-minor) chord for the iii (F♯-minor), recalling the chorus progression from *Signs* and the recurring threenote motif: \(1 \hat{5} 6 4\).
The prechorus, while harmonically the same as the verse, subtly builds intensity to the chorus by increasing the rhythm in the drums to double-time. The bridge/synth solo shifts the harmony to the relative minor B-minor, the bridge progression moving vi-V-IV-V. The V (A-major) also functions as IV in E-major, to which the song modulates for the final choruses (up a major second from D-major).

**Technical Description:** The recording set-up was virtually the same as previous instances: drums and bass were recorded first (bass recorded through direct-input into the desk), the guitars were recorded with close and ambient amp-miking, the synths were recorded directly into the recording console, and the vocals were captured with the Neumann TLM 49.
THE MIXING PROCESS

Once all the tracks were recorded I had the daunting task of mixing all the elements to get the appropriate ‘Eighties-esque’ sound. My first step was to delve into the archives of *Mix Magazine* and *Sound On Sound Magazine* for articles that detailed the production elements of similar comparison tracks. Through my research a number of consistencies in production arose between different artists, which I took into consideration when deciding what effects I would apply to my tracks.

I mixed the drums first, gating each component of the kit to minimise sound bleed. This enabled me to cut and move individual drumbeats that were out of time without impacting on the overall drum sound. I then applied some light reverb to the snare and overheads to make up for the room ambience that had been subsequently lost by gating the drums. The snare hits were mapped using Pro Tools’ MIDI capabilities and the information was then relayed through the Roland RS-9 synthesizer, triggering a synth snare patch. I mixed the live and synth snares to create a uniform snare sound, while at the same time retaining Marcel’s drum fills and groove patterns.\(^{15}\)

On tracks like *Girl Next Door* and *Good Is Good (Bad Is Better)*, where a more live sounding kit was required, the drums were routed to an auxiliary channel and compressed with an extremely low threshold and a 10:1 compression ratio. This ultra-compressed track was then mixed with the live drums to simulate an extra room microphone capturing room ambience.

\(^{15}\) This was done for all songs with live drums, except *Gipsytown*, which was left as close to the live recording as possible.
The direct input bass track was routed out to a bass cabinet and rerecorded to get a warmer bass sound. The bass amp was close-miked with an SM57 for the top end frequencies and the AKG D112 kick mike for the low end frequencies. The two rerecorded bass tracks functioned as a rudimentary EQ, the SM57 track mixed louder for a more trebly bass sound or the AKG mixed louder for a deeper sound, depending on what the overall mix called for.

The electric guitars were slightly gated to remove fret noises and amp hum, and also had high-pass filters set at around 150-200 Hz to remove unwanted low end frequencies from clashing with the bass. Some light reverb was added, and then the guitar tracks (with the reverb) were compressed with BombFactory UREI 1176 compressor emulators in Pro Tools (see Fig. 4), the UREI being a favourite compressor for many artists from the Eighties. The synths were generally left unaltered, save for some light reverb and high-pass filters set at around 500 Hz to keep them separate from the guitars. The guitars and synths were usually panned to opposite channels, again to set them apart from each other in the mix.

The vocals were recorded on two channels, one straight and one passing through the Ibanez DM-1000 digital delay unit (see Fig. 5) set at 56 milliseconds delay time to give a slight slap-back effect. I wanted to keep the vocals as natural sounding as possible so I chose not to use excessive EQ on either track, but opted rather for a single hi-mid band set at 3.1-3.3 kHz that functioned as a simple de-esser. Reverb

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16 For example Phil Collins, The Police, David Bowie, Supertramp, and (although from more recent years, an example of a modern New Wave band replicating Eighties production) Fountains of Wayne. See bibliography for corresponding articles.
was added and then, like the guitars, the vocals were passed through UREI 1176 compressors.

The saxophone was left mostly unaltered except for light reverb and a high-pass filter set at around 150-200 Hz to roll off unwanted low-end frequencies. On *She's Never Gonna Be The One*, the end sax solo is also treated with some delay, in keeping with the saturated ‘power ballad’ sound of the song.

The acoustic guitars and Dobro had high-pass filters set at around 150-200 Hz, and had some hi band boosting (7-9 kHz) to make them sound ‘brighter’ and cut through the mid-range electric guitars and synths.

All tracks were output to a stereo master fader, which was treated with a high-pass filter set at 40-50 Hz to roll off low-end frequencies, the Focusrite d3 compressor (see Fig. 6), and the JOEMEEK VC5 Meequalizer (see Fig. 7) to boost the treble on the overall mix. Finally, the tracks were bounced down to 24bit stereo master Wave files.
POST-PRODUCTION

Mastering

Wanting to have complete control over all aspects of the project, I decided to tackle the mastering of the finished stereo tracks on my home computer, using a digital audio workstation called Reaper and an array of plug-ins. First, I passed the songs through the T-Racks Mastering Suite by IK Multimedia, comprised of a six-band equalizer, a tube-emulator compressor, multiband-limiter and a soft clipper (see Fig. 8).

The equalizer was used to subtly cut mid-range frequencies between 500-600 Hz, making the track sound less ‘muddy’ while not seriously affecting either the high or low end of the audio spectrum. In some cases, a slight boost at 5 kHz was necessary to accentuate the vocals. The compressor brought up the overall track volume, while the limiter was used to stop the track clipping. The soft clipper was not used to any extent.

The next effect applied to the tracks was the Altiverb 6 reverb simulator, set to replicate classic EMT 250 reverb plates (see Fig. 9), the same plates used by The Knack on My Sharona.17

The tracks were then passed through the PSP Vintage Warmer, a multi-band compressor/limiter with saturation effects that emulate analogue tape recording (see Fig. 10), to give them a further retro sound.

17 Buskin. ‘Classic Tracks: The Knack My Sharona.’
Finally, I applied the Waves L3-Multimaximizer to limit any peaks created by previous processing, and to dither the tracks from 24bit recording to 16bit audio stream (see Fig. 11), ready to burn to CD.

**Album Booklet/Graphics**

The last step in completing this project was compiling the graphics for the album booklet and inlay (see Fig. 12). In keeping with the New Wave influence, the band adopted suit jackets and ties coupled with jeans and sunglasses. A black and white colour scheme was used to make the picture look somewhat dated, another ‘retro’ aspect to the cover design.\(^{18}\)

One of the main design considerations was simplicity, as I wanted to mirror the unpretentiousness of the music in the album art. Particularly this can seen in the back inlay and on the disc itself, both of which consist simply of a plain background and tracklisting.

\(^{18}\) The monochrome cover art is also reminiscent of The Knack’s debut album *Get The Knack.*
CONCLUSION

As discussed in the foreword, one of the central challenges to this recording project was managing transmission loss between the songs as they existed in my imagination and how they were realized in the recording studio. I attempted to minimize the loss as much as possible by emulating recording and production techniques from the Eighties, taking steps to control the recording environment, and utilizing technology that enabled me to transmit compositional ideas that were beyond my abilities as a performer.

Obviously, transmission loss was always going to be an issue in this project as I attempted to recreate the sound of a past era in the modern day recording environment, using digital equipment rather than analogue, and implementing production techniques that were then considered ground-breaking and are today regarded as obsolete. Finding a compromise between the old and the new was an ongoing concern throughout the recording process.

Arguably one of the most significant areas where transmission loss can become a problem is during the compositional process, writing music that lies beyond the playing ability of the musicians involved, or working with sounds that, for one reason or another, cannot be created within the recording studio. I employed a number of tactics to get around these restrictions: I recruited competent session musicians thoroughly familiar with the music of the Eighties, I utilized MIDI technology to perform passages of difficult music, and I used an array of electronic instruments to create a virtually endless palette of sounds.
Once the compositional aspects of the project had been planned, thought had to be given to how best to capture the music. Through research of articles from *Mix Magazine Online* and *Sound on Sound Magazine* I was able to get an idea of the gear being used by artists and producers in the Eighties, and subsequently was able to source similar gear through the University and employ software emulators that replicated the sound of vintage equipment. Still, a degree of transmission loss was experienced by substituting gear where original equipment could not be sourced, and from my own inexperience in using the specific technology detailed in the magazine articles.

I further attempted to reduce transmission loss by taking steps to control the acoustic recording space. The main recording room at the studio was very large and as a result produced an undesirable amount of room reverberation. To rectify this, much of the drum recording was done in a smaller, padded room, and the bass and synths were recorded directly into Pro Tools, producing tracks free of any room ambience. Reverb could then be added later as an effect according to the sound of the overall mix.

Even taking these steps to minimize transmission loss, there still were instances outside my control that had an impact on the final product. For example, a number of tracks were planned with backing vocals, but due to conflicts in scheduling, the singers could not be arranged in time. I plan to return to the studio after this project is submitted and add the missing elements at a more convenient time. Also, as this was my first recording project, my lack of production experience had an effect on many
areas of the recording process, particularly in the mixing and mastering stages where I essentially learned to use the plug-ins through trial and error.

As well as attempting to manage transmission loss, I also incorporated the concept of ‘in-studio composition’ in various instances throughout the album, in particular with the use of instruments that do not typically feature in the band, such as saxophone, acoustic guitar and Dobro. Some of the tracks underwent tremendous transformation in the studio (for example Gypsytown) resulting in completely separate songs from those performed live. Also, the improvised vignette Safe Sax was produced entirely in-studio.

Overall, I feel the project was a success. I managed to produce an ‘Eighties-esque’ album of original work, utilizing as much vintage equipment as possible, and undertaking as many aspects of the recording process as I was able. I acknowledge that there are shortcomings on the album, many due to my inexperience in the recording studio, and I will endeavour to correct some of them before the album is released for public consumption.
Articles


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**Books**


**Audio/Visual**


APPENDIX A

LYRICS

(I Want To) Do It Tonight

I-I-I-I-I-I-I-I
I, I had a g-g-girl
She was my t-t-type
A-a-a-a-a-a-and
Oh, she was so f-f-fine
And she was m-m-mine
M-m-m-m-m-m-m-m-mine
I, t-t-took her out
P-picked her up
A-a-a-a-a-a-and
We, p-parked b-b-by the lake
She t-t-took my hand
A-a-a-a-a-a-and
Oh, and then she looked at me
And that’s when she said
T-t-t-t-t-t-to me
I want to do it tonight
Whoa, oh, oh, oh, whoa oh
I want to do it tonight
Whoa, oh, oh, oh, whoa oh
Oh, oh, oh, oh

I Like The Girls

I like the way they walk
I like the way they talk
I like the clothes they wear
I like their long, long hair
I like them all the time
I want to make them mine
Yeah, I like their dresses short
Oh, and when I see them
How I like to tease them
Oh, and when they come my way
I want to say, to say, to say, to say, to say
I like the girls
I like the girls
I like the girls
I like the girls
I like their bodies close to mine,
Their lipstick shine,
It kind of makes me lose my mind

I-I-I
I, said c-c-come with me
C-c-come with me
I-i-i-into the backseat
I, t-t-took my shirt off
T-took her skirt off
A-a-a-a-a-a-and
Oh, she k-k-kissed me
It was a-very
L-l-l-l-pretty
I, held her oh-so tight
It was so warm inside
A-a-a-a-a-a-and
Oh, and then she looked at me
And that’s when she said
T-t-t-t-t-t-to me
I want to do it tonight
Whoa, oh, oh, oh, whoa oh
I want to do it tonight
Whoa, oh, oh, oh, whoa oh
Oh, oh, oh, oh
She’s Never Gonna Be The One

She’s never gonna be the one
She’s only gonna hold you down
And though you might feel alone
She’s never gonna lead you home

And she’s looking so fine
She’s standing in the light
She’s looking at you
And you know that she wants it
She’ll make you feel so fine
She’ll hold you through the night
But there’s something you should know

She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’s never gonna be the one
She’ll never let you have your say
She’ll never let you have your way
And you know all the games she plays
But something makes you want to stay

Safe Sax

Girl: “Tell me the truth, am I really your first time?”

Boy: “Sure you are, baby. Why do all you girls always ask the same silly questions?”

Girl Next Door

She looked just like a beauty queen
Or something off of a movie screen
A rhapsody in tight blue jeans
What a dream
Whoa, oh, oh, oh, oh, oh, oh

Walking by in a halter-top
Looks so good she makes all the boys stop
And one by one their mouths will drop
She’s so hot
Whoa, oh, oh, oh, oh, oh, oh

I want a little bit more
You know she lives next door
I think she knows the score
Oooh

Girl next door (such a pretty thing)
Girl next door (just a brief fling)
Girl next door
One that don’t mean a thing

Don’t you know what you do to me?
It’s so plain anyone can see
There’s no place I’d rather be
Oh, baby
Whoa, oh, oh, oh, oh, oh, oh

Wanna hold you every night
And touch you until the morning light
I’m going for it with all my might
Outtasight
Whoa, oh, oh, oh, oh, oh, oh

And I can hear her sigh
You know I just might die
I’m gonna give it a try
Oooh
Jamie’s Sister

Hey there, Jamie’s sister
You make me feel whole
And out of control

Hey there, Jamie’s sister
I think that you’re the one
We could have a lot of fun

I struggle nightly without you
I’m so lonely, sleep would be a pearl
Oh, I’m hooked on the head girl
That’s a nice top you’re wearing
I’m dreaming it on the bedroom floor
Oh, won’t you be

My head girl
Head girl
Head girl
Head girl

Head girl
Head girl
Head girl
Head girl

Signs

My baby’s trying to tell me something
She’s got something on her mind
I think she’s trying to tell me something
I’ve got to try to read the signs

I can tell by the way she’s standing
That she’s got something to say
Oh, I can’t believe the game she’s playing
She could play it all day

Slow down, boy
Curves ahead
Stop, go, slippery when wet

Give me a sign
I know you’re trying to tell me something
You’ve got to try a different way
Give me a sign
You’re just not getting through to me

Why can’t you just come straight out
And tell me what the hell you’re talking about
**Good Is Good (Bad Is Better)**

All the girls that I’ve ever known
Well, they’ve all kind of been the same
The kind I meet are oh so sweet
And they’ve all had similar names

All the girls that I’ve ever known
Well, they’ve all been pretty good
Quite the sight, and so polite
They do the things that good girls should

I met this pretty young thing
Here’s what she said to me
She said, “I’ll be a bad girl, daddy
If you want me to be…”

And I said
Good is good, but b-bad is better
Good is good, but b-bad is great
Good is good, but b-bad is better
So be bad
So be bad, for goodness sake

**Gypsytown**

I’ve got a bad case of
Doing things I shouldn’t do
And I’m in trouble now
But girl that’s nothing new
I’m running from the law
To where I can’t be found
The long arm never reached
The streets of Gypsytown

You asked me what I’ve done
I didn’t want you to know
But Johnny cheated me
He didn’t pay me my dough
So I pulled me gun
And I shot him to the ground
Now underground I’ll go
A-way down Gypsytown

Gypsytown, Gypsytown
A new beginning there
Gypsytown, Gypsytown
We won’t live in fear
Gypsytown, Gypsytown
Girl come with me today
Gypsytown, Gypsytown
I didn’t want it this way
If You Were Gone

I know you said that you loved me
I know you thought it was real
I know that you’re thinking of me
And wondering what do I feel
I know that you said forever
I shouldn’t have let you believe
And now, you’re trying to decide
Whether to stay, or whether to leave

If you were gone and you’re gone
And I’d never know
(If you were gone and you’re gone
And I know)
If you were gone and you’re gone
And I’d never know
(If you were gone and you’re gone
And I know)

(I Don’t Want To) Break Your Heart Tonight

Baby called me the heartbreaker
Said it wouldn’t take long to start to make her
Cry if I didn’t go and hold her tight
Said she didn’t want to sleep alone tonight

I never meant for it to be this way
Saying all those things you told me never to say
And though it might make you feel all right
Girl, I just can’t take that chance tonight

No, I won’t go
Because I don’t want to break your heart tonight
It’s all right
All right, all right

I never wanted to hurt you
I never wanted to lie
And I’m not trying to desert you
Though I’m saying goodbye
You wanted love at first sight, and
I was trying to be kind
I guess that nobody told you
Most of the time, love can be blind

If you were gone and you’re gone
And I’d never know
(If you were gone and you’re gone
And I know)
If you were gone and you’re gone
And I’d never know
(If you were gone and you’re gone
And I know)

Baby told me how much she cried
Said she couldn’t keep it any longer inside
And though she never wanted us to live a lie
She wanted one more night just to say goodbye

I never meant for it to be this way
Saying all those things you told me never to say
And though it might make you feel all right
Girl, I just can’t take that chance tonight

No, I won’t go
Because I don’t want to break your heart tonight
It’s all right
All right, all right
APPENDIX B

ILLUSTRATIONS

(I WANT TO) DO IT TONIGHT  (142 bpm)

INTRO:  Guitar 1 bar
        + Drums 1 bar
        + Bass 1 bar (C# octave)
        + Synth/vocals 1 bar ("I-I-I-I-I-I-I-I")

VERSE:  (each chord for 1 bar)

C\#  G#  B  F#  
I had a g-g-girl, she was my t-t-type, a-a-a-a-a-and

C#  G#  B  F#  
Oh, she was so f-f-fine, she was m-m-mine, m-m-m-m-m-m m-m m

C#  G#  B  F#  
I took her out, p-picked her up, a-a-a-a-a-a-a-and

C#  G#  B  F#  
We, p-parked b-b by the lake, she t-t-took my hand, a-a-a-a-a-a-a-and

PRECHORUS:  (each chord for 1 bar)

C#m  G#  A  B  
Oh, and then she looked at me, and that's when she said t-t-t-t-t-t to

STOP (3/4 bar)

Me!

CHORUS:  (each chord 1/2 bar)

E  A  F#m  B  
I want to do it to-night, whoa oh oh

E  A  F#m  B  
Oh oh. Whoa oh

(Fig. 1) An example of the recording charts used by Rob and Marcel.
(Fig. 2) Roland Juno-60 synthesizer.

(Fig. 3) Logic’s ‘Guitar Amp Pro’ used to model Jamie’s Sister distortion.

(Fig. 4) BombFactory UREI 1176 Compressor emulator.
(Fig. 5) Ibanez DM-1000 Digital Delay.

(Fig. 6) Focusrite d3 Compressor.

(Fig. 7) JOEMEEK VC5 Meequalizer.
(Fig. 8) T-Racks Mastering Suite.

(Fig. 9) Altiverb 6 reverb simulator, programmed with EMT 250 plates.
(Fig. 10) PSP Vintage Warmer.

(Fig. 11) Waves L3-Multimaximizer.
(Fig. 12) The DFenders album cover art.