Chapter 3

THE COMPLEXITY OF HARMONY

In this chapter we will examine how harmony communicates in a film music environment, using specific voicings, counterpoint, inversions, extensions and other harmonic devices. We will look at how harmonic conventions, coupled with specific instrumentation and orchestration techniques, combine to create some memorable musical moments in film. Music analysed includes: The Pelican Brief (James Horner) Halloween (John Carpenter) Back to the Future (Alan Silvestri) The Twilight Zone (Marius Constant) Batman Returns (Danny Elfman) Close Encounters of the Third Kind (John Williams) District 9 (Clinton Shorter)

THE PELICAN BRIEF James Horner

James Horner is a multi-faceted composer whose eclectic style spans thirty years and numerous musically diverse blockbuster films. He is seemingly comfortable in any genre and writes vibrant, emotion-filled music which communicates vividly to the audience. The Pelican Brief is a thriller featuring a mixture of legal issues, animal rights concerns and political corruption. The excerpt in fig.1 is a transcription of the opening title music.

Audio, 00.17, Main Title – Movie 00.30.00

The points worthy of discussion from this score are far too plentiful to cover in one chapter alone. For example, Horner’s rich mixture of textures, the way his composing matches perfectly the arrangements which deliver the music, the way he uses solo vocal not as a ‘special case’ or in a vocal style but as part of the orchestra; all these factors could fill a chapter alone.
For the purposes of this chapter I would like to address purely his use of harmony and instrumentation; specifically in fig.1 his use of dense scoring and cluster harmony to add a delicate, ghostly, ethereal otherworldly quality to the music.

The pictures in the opening section of this film, beautifully shot and brilliantly envisioned by director Alan Pakula, both stunning and foreboding, nevertheless give little away about the film’s narrative. The delicate and evocative music partly fulfils this function by placing a melancholic lamenting score against the opening images. How exactly does James Horner’s opening credits music suggest the emotion? How does it communicate with its audience?

Before we look at the harmony in detail let’s look at the piano line and the way it dances over the Cm chord and touches on the add2 (the D). The highlighted movement between top C, G and D is pivotal here because it offers two successive 4\textsuperscript{th} intervals which give the line a kind of ‘squareness’, accentuating and italicising the add2; the bare harmonies work well in penetrating the colours created by the accompanying ‘dreamy’ chord (circled).

The chord highlighted by the perforated circle and below (fig.2) sits in the background of the mix behind the piano line and vocal motif. It is worth taking a much closer look at this style of harmonic grouping. Doing so will open up important areas of study relating to harmony and how it functions. Essentially the chord is a Cm9 but voiced as a cluster. This chord works well in context of the textures and instruments used, but looking beyond the instrumentation and into the chord I want to explore why chords such as this work so well. Knowing \textit{that} they work is one thing, but knowing \textit{why} is important.

The context of harmony \textit{is} the gaps; the silence between the notes. It’s all about the gaps; without the context of intervals, music is nothing more than random harmonic energy with no overall context.

There are different ways of interpreting harmony. Most analysis concerns itself with surface level basic analysis of how harmony functions in an immediate, literal sense; which notes go where to create a certain chord. Most analysis of harmony uses as its starting point the root note of the chord; in identifying the chord everything is seen and heard in context of the root note. This is the basis of harmonic theory and is also the reason intervals have the names they do. But if we stop for a moment to consider what subtle dynamics are at work when we play any chord, especially one lathered with extensions, we can begin to understand the almost limitless possibilities harmony offers us, the colour it possesses and the almost equally limitless ways in which it manages to communicate emotionally.

Let’s look firstly at a basic analysis of the chord in question

\begin{center}
\textbf{Fig.2}
\end{center}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fig2.png}
\caption{The sound of silence: The gap that separates two notes does not make a sound, but it is the loudest, most profound silence you’ll ever hear because it dictates the context of what music is and it defines \textit{how} we listen.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fig3.png}
\caption{This traditional analysis displays intervals as seen in context of their root.}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{fig4.png}
\caption{Everything is rationalised from the ground up.}
\end{figure}
This is how we normally rationalise harmony. Everything is seen from the dominating perspective of the root. Because this is how we learn music theory and learn how to build chords, this is how we tend to analyse them too. If we widen the context of our analysis and look at notes and intervals in context of their neighbours (below) not in context of the root - a more localised relationship – it offers a slightly different perspective.

Understanding and appreciating the myriad of different harmonic dynamics floating around inside this chord goes some way to explaining how and why it communicates such vastness of colour and so vividly. The breadth and complexity of harmonic dynamics within this chord is what listeners hear; the intervals and relationships are varied and complex and this alters our perceptions, cofounds our expectations and offers a different listening experience. This type of chord and the way Horner delivers it to us places us in exactly the right emotional state to enjoy the story and watch the film.

To seemingly go completely off the deep end; the chart below displays all the intervals at work in the Cm7 (add2) displayed sequentially in row rather vertically than on top of each other, to allow for a better visual interpretation. The bottom G note (5th) relates to six other notes above it in the chord. The Bb in bar two (7th of the Cm chord) relates to five other notes above it in the chord. The C (root) relates to four other notes above it in the chord. The D (2nd) relates to three other notes above it in the chord. The Eb (min3) relates to two other notes above it in the chord. The G (comp. 5th) relates to the note above it, the compound octave.
This vast array of harmonic ‘events’ is at work whenever this chord is played in a way which enables it to be heard; this is what we hear. We cannot hope to be able to hear every interval; we will detect a few at best, or perhaps the primary intervals that communicate the most clearly. But if just one interval was missing or was changed, the affect would touch everything. Everything would change. I say this to relay the simple but awesome power harmony wields. It helps to understand the immediate and cumulative effects of harmony in order to understand how and why music sounds the way it does.

Looking one last time at the chord we can also see it has more than a whiff of polytonality about it. One of the things which give it its vague, nebulous, almost dream-like indefinite personality is that whilst it appears to state one chord it hints at two.

Put simply, the main reason this chord possesses a tinge of dreamy ambiguity is because it speaks with two voices at one. Our inability to ‘hear’ this for what it is, our inability to process and decode the information causes the ambiguity.

This brief transcription below (fig.7) is taken from a later point in the same cue.

The first chord in fig.6 is the actual chord; the second chord is the basic inverted Cm prior to the 7th and 9th extensions. But the third chord is a fully formed root-positioned Gm chord made up of notes extracted from the first chord.

As with the first chord we looked at, if we analyse the chord in bar two of fig.7 the normal way we simply see a stack of intervals and extensions (transcribed separately, fig.8).
To move onto a slightly different part of the same issue, we need to analyse the famous, iconic piano line from *Halloween*, composed by the director himself, John Carpenter. The *Halloween* films have become ingrained into 20th Century pop culture and film history. Equally iconic is the music. Play the distinctive piano line to anybody who hasn’t lived on Mars for the past thirty years and they will recognise it as the *Halloween* theme, either because they saw the film or have heard the music separately. But how and why does the piano line work so well? The issue we will analyse is how certain intervals are heard even when not stated. I’m not talking here about harmonics or anything else which provides a faint, albeit real, virtually inaudible interval; I’m talking about how the power of association affects how we listen. John Carpenter’s music for *Halloween* was a synthesizer-driven score. His minimalist electronics continue to stand in contrast to the traditional horror soundtracks we’ve become accustomed to.

**HALLOWEEN John Carpenter**

*Harmony by conjecture and probability; intervals by association*

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Before we come to the harmony, let’s deal with the rhythmic elements: 5/4 normally feels disjointed and rhythmically unsure.

Hundreds of years of exposure to tradition and intolerance to musical ‘abnormalities’ deliver this presumption, and yet this piece feels suspiciously like 4/4. The placement of the three successive C# notes, particularly the anticipated second one, manages to make 5/4 appear completely natural. The addition of the percussion, which states the ‘five-to-the-floor’ beat helps.

Fig.9

However if we look at the same chord with the notes transcribed in sequence horizontally, we can see how many separate harmonic events take place as all the notes in the chord relate not just to the root note but to each other.
Regarding the harmony; the overarching harmony is suggestive of F#m, despite no minor 3rd anywhere in the line. Play this line and you will ‘feel’ an accompanying F#m minor chord. There is truthfully no such thing as an unaccompanied melody: if we hear a line by itself what our brains do is seek to find order by classifying and categorising. We will ‘hear’ the single line in context of the harmony it suggests.

The composite suggestion is F#m. Why, when there is no minor 3rd, do we ‘hear’ this line in a dark, minor context? Play the line over an F# maj chord and it will sound wrong. Play it over an F#m and it will sit better. Play it on its own and it will sound better still because it conveys its character without stating it. The D note is not found in the major scale of F# but it is found in the open and harmonic minor scale of F#. So despite implicitly avoiding the minor 3rd, it speaks via the power of conjecture, probability and association. Sometimes you don’t need notes to actually be there. They just need to seem to be there. The overwhelming majority of listeners will be unaware of the history and heritage of harmonic presumption and how it directs them. They don’t need to understand or read music to be beneficiaries of the power it exerts over them.

This is one of the reasons the theme from *Halloween* is so effective; because it arrives incomplete and needs our knowledge, intuition and interpretation to complete the picture.

As explained in more detail in earlier chapters, our expectations are governed by our assumptions and partly, our prejudices. Most of the time we listen to music we expect to listen to. We are rarely challenged. We even go out of our way not to be challenged. We develop taste, preference, partiality, inclination. We build up an impressive database in our mind of what’s probable and what’s likely. Effective music is music which challenges, tests, confronts and defies the simplicity of our expectations, but does so in a way which makes it accessible and acceptable. Film music provides this opportunity perhaps better than most music because it is not listened to as real music during the film, but as music which is part of something else. Composers can take more risks and listeners listen with less prejudice and specific expectation than they would if they were listening to music for pleasure; after all, when they sit in a darkened film theatre they expect to be distracted, entertained and even challenged. They don’t go for normality. They go for an experience.

Composition has always been about choice; the issue therefore, when concerning oneself with concepts of originality and authenticity, is really, to what degree we choose and to what degree, if any, we bring something genuinely new to the table. Re-arranging things in a different order may well qualify for ownership of copyright but some might say it doesn’t in any meaningful way qualify as moral ownership or creative ownership. What we own is the order the notes fall in, not their existence. We own the context not the reality. We don’t invent music, we rearrange it. To return to the analysis of *Halloween*, if we look to when the lower synth line accompaniment enters we can perhaps understand other reasons why the piece was so effective.
An abrupt chromatic key shift from F#m on bar 3 is tempered by the contrary motion of the accompaniment and the ambiguous undefined accompanying chord in bar four. Is it an Fsus with no 5\textsuperscript{th} or an inverted Bb no 3\textsuperscript{rd}? The fact that there are different ways of rationalising this theoretically means there are different ways of interpreting it aurally, e.g. hearing it. Another aspect of the success of this piece is the uncomfortable ‘sonic interference’ and dissonance created by the low voicing of the min 3\textsuperscript{rd} interval in the second bar of figure 10. Normally it would never be good to write such close harmonies at this low level, such is the effect of the dissonance. But in the case of a horror movie, it works well precisely because it is uncomfortable.

As an example of the power of harmony, play the sequence below….

![Fig.12](image)

The following intervallic context will appear in your head without provocation.

![Fig.13](image)

Based on the notes played, your mind will happily fill in the missing context. It will provide a key signature, intervals and the presumption of a safe chord to accompany it (E). Hundreds of years of tradition deliver these assumptions.

**THE TWILIGHT ZONE Marius Constant**

Now try the line below. The melody from fig.12 is there but this time we’ve applied a flattened 5\textsuperscript{th} interval on top of the existing notes. Now you hear *The Twilight Zone*. Nothing changes music like an interval. Nothing skew perspective like a flattened 5\textsuperscript{th}. This famous theme by Marius Constant is probably one of the most instantly recognisable themes ever written. Like *Halloween* it conjures up the perfect emotional state to accompany the pictures and narratives. As soon as we hear the *Twilight Zone* theme being played we are transported to an emotional state which makes us susceptible to the bizarre narrative of the show.

**Fig.14 The Twilight Zone - Marius Constant**

![Fig.14](image)

It communicates because it has two musical realities; it has the nice, jaunty little up-and-down theme, which we attempt to rationalise as maj 3\textsuperscript{rd} 4\textsuperscript{th} maj3\textsuperscript{rd} and 1\textsuperscript{st}, which is then bolted on to a constant note which creates varying levels of dissonance.
It communicates so well because the two realities compete simultaneously. The piece goes too quick to be rationalised or understood completely but this doesn’t mean the reasons for its abstract qualities don’t exist. It just means we don’t understand them. Like a mobile phone roaming for a signal, the mind’s ability to instantly pigeonhole, compartmentalise and classify, attempts to make sense of the information it receives.

TS Eliot once said ‘true art communicates before it is understood’. Leaving aside the notion of what exactly constitutes ‘true art’, he nevertheless had a point; most successful film music shares one common denominator: it creates within us a sense, an emotion, before it is understood, if indeed it is ever understood. The problem is that the same statement may imply that, if something communicates without being understood, why bother understanding it in the first place? From an audience perspective this is a fair point. Ignorance may well be bliss. But artists and composers bother to find out why art communicates a sense of meaning because to ‘know why’ is to understand. To ‘know why’ is to be able to reproduce a new piece without the ridiculous burden of not really understanding how you produced the last one.

For a film composer, little is given to chance. Composing may be a deeply emotional and responsive experience but the ability to convert our emotions into commercial consumable units, quickly and efficiently, is about knowledge; lots and lots of it. Knowing you’ve created something that works isn’t enough without understanding ‘why’. Without understanding why, ignorance will never be bliss; it will only ever be ignorance.

**Jolts**

Within the world of television viewing the concept of ‘jolts’ exist: A ‘jolt’ is a term given to an event which takes the viewer’s attention away from one source of visual stimulus to another; a quick scene change or different camera angle. Decades ago relatively few ‘jolts’ occurred. Flash forward to the 21st century and one of the hot topics of media discourse is the level and volume of jolts, which are relentless and on-going.
Cultural theorists believe this is too much; that it damages our awareness, prevents us from being aware of an image for long enough for us to understand it, turning us into superficial viewers. Ironically the concept of ‘jolts’ has a different meaning in music. Because as listeners we listen and don’t look, we need jolts to actually sustain our interest and enjoyment; but not too many. If the iconic, addictive and instantly recognisable *Twilight Zone* melodic figure sequence had simply carried on without the abstract brass and woodwind accompaniment which eventually occurs, the history of this tune, or ‘sonic logo’ might have been very different. People have drawn similarities between *The Twilight Zone* and *Halloween* because they possess similar hypnotic effects. But they are different; *Halloween* needed the chords which eventually came to free us from the monotony and simplicity of the initial melodic line, whereas *The Twilight Zone* needs the eventual brass and woodwind burst of accompaniment to free us from the baffling tirade of dissonance. I suppose the point here is that rhythmic or harmonic dissonance, like any musical device, needs to be delivered at the right time and in the right way and for the right length of time. Cultural theorists say visual jolts will drive us mad and turn us into morons. But we need them in music to free us from tedium, uniformity and sameness. However, as we will find out in subsequent chapters, quite the opposite is true when crafting minimalism: it is the beautiful and hypnotic appropriation of tedium and monotony and the rejection of traditional context that delivers the mind-set to create minimalism. In most music what matters is what’s there; what’s heard. In minimalism what matters is what’s *not* there.

**BACK TO THE FUTURE**  *Alan Silvestri*

To show, again, the power of intervals and how they can be manipulated, look at the following transcription.

![Fig.16](image1)

In this exchange although what the chord represents collectively still moves an augmented 4th down, this is smoothed-out and made less apparent by the different voicings and inversions in bars one and two. The chord exchanges in bars one and two are made more subtle and less obvious because of their inverted state but bar three remains root positioned. How can re-voicing a chord alter the perception of the degree to which it falls or raises? None of the individual note exchanges in bars one and two represents an augmented 4th drop; only the overall chord that the notes imply does. In fig.16 the overall chord movement and the notes within all state a drop of a sharpened 4th. But in bars one and two of fig.17 the overall chord movement of #4 is almost suggestive and notional. We’re therefore in the land of a kind of musical ‘optical illusion’. We’re hearing three realities which contradict; the notes in the chords, the note intervals between one chord and the next, and the intervals the notes state in relation to the chord they create (see fig.16)
A combination of these realities causes the kind of distinctive harmonic colour which makes this music effective. The music in its full glory, the iconic and instantly recognisable music for *Back to the Future*, is transcribed in fig.19. This sequence, probably more than most other musical pieces in the film, conjures up the playful tongue-in-cheek nature of the film. Yet again we not only have the musical brand of a film playing a pivotal role in the film’s success, but the brand itself being built over a specific and precise harmonic sequence.

Staying with *Back to the Future*, and to once again show the considerable dexterity harmony offers, let’s observe the other famous iconic motif from the film (the fanfare). If you look closely at bars five, six and seven (below, fig.20) you can see they speak the same sound but display different notes; different *spellings.* This is because the chords that accompany the second entry are different and so require an enharmonically different version of the melody. This once again shows the power of harmony and how we interpret intervals; harmony can say the same thing twice but mean different things.
One of the strengths of this fanfare (below, fig.21) is that the same melody appears twice, but the second time it means something different.

The music for the Back to the Future movies was partly built on the #4th. Below is the main, iconic theme.

The great tool at the disposal of any film score writer is to restate a melodic figure but with different surroundings. You reinforce the theme but stop it becoming predictable by varying its context.

Notice how the F# (add2) in the Eadd2 becomes the root of the subsequent F# chord and notice how Silvestri makes an issue out of it by removing the 3rd from the Eadd2 chord making it stark and bare and thus highlighting the add2.
The section below, from the original *Back to the Future*, shows again the reliance on the #4. This is the section where ‘Iranian terrorists’ (whom the Doc had stolen plutonium from) discover him and Marty in the parking lot as the Doc is preparing to time travel. The sense of urgency is created by the brass instrumentation, rhythm and the #4 interval which is the main harmonic identifier.

**COLUMBIA TRISTAR INTRODUCTION**

The following example is from the *Columbia Tristar Pictures* aural logo, which trades heavily on the #4. The surrounding orchestration is crucial when determining the context of how the #4 will sound. The *Columbia Tristar* example exudes power and wonderment because of the simple but powerful orchestration. Danny Elfman uses the interval heavily as we will observe later in this chapter, but does so in a more diversely orchestrated way, creating the kind of synergy between movement and instrumentation which delivers a dark yet playful feeling. Sharpened 4ths are denoted by *.
The first couple of bars of the same intro are scored out below (fig.25) but this time in context of an Eb key centre. The melody is perfectly scalic in construction.

![Fig.25](image)

Play the segment to the left as written with an accompanying chord of Eb then play it again with its original context of the Db to see how effective the G note is in context of its surroundings.

Essentially, in context of the original version (fig.24) the true power of the #4 is that we hear it as a maj3rd of an Eb chord. The note subtly suggests a different chord to the one being played; it implies two keys simultaneously both overlapping each other.

**CLOSE ENCOUNTERS OF THE THIRD KIND John Williams**

*Close Encounters of the Third Kind* is a 1977 science fiction film telling the story of Roy Neary, a lineman in Indiana who has an encounter with an unidentified flying object. The title is derived from ufologist J. Allen Hynek’s classification of close encounters with aliens, in which the ‘third kind’ denotes human observations of actual aliens or ‘animate beings’. Alongside *Star Wars* and *Superman*, *Close Encounters* led to the reemergence of science fiction films.

Successful composers have mastered the art of harnessing music’s great power by using its various traditions, conventions and tricks to illicit emotional responses in listeners. With John Williams everything is deliberate; everything is there for a reason. There are no lazy notes; nothing is accidental. Every single emotion and reaction is provoked by science, craft, precision and placement. He displays spellbinding skill, extraordinary emotional awareness and fantastic musical ability to convert his emotional awareness into music we can all experience and enjoy. Romantic elements of the score draw on styles contained in the so-called ‘weepies’ of the ‘golden era’ (1930s – 1950s). How? What are the musical elements which create these feelings and how can they be uncovered, rationalised and explained? Let’s start by looking at a typical ‘romantic, weepy’ section; one of the iconic moments where the aliens ‘trade’ people they abducted decades ago for newer ‘volunteers’. One section features several shots of an alien face-to-face with earthlings. It is one of the most mesmerising and emotionally charged scenes of the film, and part of it contains the music below, which comes 5.35 into the soundtrack album track entitled ‘The Visitors/End Titles’.
Fig. 26  Audio – The Visitors/End Titles 05.35 – Movie 02.11.00

Emaj7/B  A♭maj7/C  Amaj7/C♯  B♭maj7/D  B♭/D

Violins

Violas

Cellos

Hp

Cel.

Flutes

Horn

Emaj7

A♭maj7/E
The arranger within

At the centre of any great composer is a great arranger, for this is, in reality, what composers do: they arrange music. They plan, coordinate, organise, position and assemble using imagination, intuition and emotion but also an almost faultless and eclectic knowledge of music structure and how to use it to provoke reaction and feeling. This is why music is such a potent but baffling thing to understand for many people. It is the result of an almost limitless number of potential musical situations being manipulated and decided on by human interaction. Thus, we bring the two things to music that music itself does not possess: choice and the ability to put into practice; music cannot write itself. The other great component in any composer’s arsenal of abilities is judgement. Composers are not responsible for the fact that a particular device or sequence of chords work (just as they are not responsible for the existence of notes or chords); they are responsible for realising that specific situations work, for appropriating elements of music’s vast array of possibilities sensitively into their own distinctive context.

Judgement is everything

Commensurate to all this is judgement. Forget profound thinking ‘genius’ or great art for a moment and think instead of something much less exciting but more provable; the power of great judgement. The issue is not that a particular chord sequence exists; the issue is whether you should use it, why you should use it, when you should use it and how you should use it. Whether it works in context of what you’re doing depends on judgement. Every great composer has the equivalent of the ‘cutting room floor’ in their head or on paper, which is full of ideas that might work. The final arbiter of whether a melody or chord sequence goes into your piece or not is not whether it’s ‘good’ or not, but whether it works. If listeners think your music is good, it will not be because of one solitary moment, even if they think it is. How we deliver the moment is as important as the moment itself. What will make them sit up and listen is if everything works in context with everything else. This is about judgement and architecture and structural understanding.
This is what the great classical composers had and this is similarly what all great film score composers have. Ultimately when our understanding and comprehension of music and how it is created has moved from meaningless metaphysical notions such as ‘genius’ and ‘art’, what defines music is how well it is put together. If we condense the basic harmonic information in the Close Encounters example from fig.26 we reveal the direction and flavour of the chords. Played in their root position the chords mean very little and lack the distinctness which so typifies John Williams. His wonderful and vivid imagination has its roots in an almost unparalleled understanding of how music works, what potential layers exist and how to extort colour and emotion from specific combinations of harmonies, melodic figures and appropriate orchestration. Let’s start at the beginning: these are the basic chords which underline the segment.

The chords of E (bars one and two) to Ab (bars three and four) share one common note (G#) but Williams has made the transition smoother and dramatised it by making the E chord into a 2nd inversion with a B (5th) in the bass and then by making the subsequent Ab chord into a 1st inversion, placing a C (3rd) in the bass. Because the B note is the 5th and the C note is the maj3rd although the notes are chromatically a semitone apart, the intervals they represent aren’t, so we avoid the feeling of parallel movement. The effect of this subtle but fundamental realignment of harmony cannot be overestimated. The melody in this segment features unusual leaps which draw attention; Williams uses these excessive intervals as deliberate compositional tools. This is not a passive melodic figure designed simply to politely accompany the chords – it is strange, which can have the effect of making the listener gravitate to the harmony in order to understand it; the melody is designed to draw the harmonies out. With such an odd melody, listeners unwittingly search for the context in order to rationalise the meaning (see fig.28).

The flavour of this piece, initially and from a purely harmonic perspective, comes from a combination of harmonic devices which fundamentally alter the audience perception of a chord, the first of which is the inversion. Inversions cause realignment of a chord, altering its weighting and complexion. Inversions also allow for a smoother transition between chords; as the transcription in fig.27 shows, the inversions allow for a smooth ascending bass line.

Fig.28
Now to a concept we have observed before; music’s two realities; what the note is in musical terms and what is represents in context of the chord which accompanies it (its intervallic context).

Williams makes great use of this concept; the G# (maj3rd) in bar two evolves to become the root of the Ab chord in bar three. We listen to the melody note and the chords appear to morph and shape-shift around the note. In bars four to five the B represents two subtly different intervals, the flattened 10th of the Ab/C chord and the 9th of the Amaj7/C#. The fact that the same sound occupies two realities in succession is one of the reasons for the mesmerising aspect of the piece. This happens again in bars six and seven where the C# melody goes from being a maj3rd of the Amaj7/C# to the flat 10th of the Bb/D.

Clusters, voicings and dissonance: Clusters fundamentally distort and disfigure a chord, blurring its clarity and softening its edges. Extensions alter the flavour and weighting of a chord by injecting extra colour which can disorientate but also excite. In this piece we have a combination of the two. What we also have is the high string melody being doubled high in the cellos.
When composers use the #5 (or sharpened 5th) they normally omit the ‘ordinary’ 5th in order to accommodate what is in reality an alternative. You have one or the other; not both. What John Williams did in the first and third of the chords in bars three-seven of fig.30 (highlighted below, fig.31) was to add the #5 but retain the ‘normal’ 5th. This creates a clash which is only mitigated and softened by the chord being built on its rich 3rd which places the clash in the middle. Surrounded as it is by the 3rd at the bottom and the octave at the top, this creates a kind of ‘dissonance sandwich’ where the difficult bits are in the middle (boxed) and not exposed. The third chord has the extra subtlety of the added 2nd.

The chord in bar two (Amaj7) is inverted over the 3rd but has the exposed maj7/8 clash at the top of the chord exposing and italicising it. Sympathetic voicing and orchestration compliments and assists all the observations above. The sheer number of possible harmonic variables created by the use of devices and techniques in music in general is almost beyond comprehension and yet the effect harnessed by using a specific combination is something we can, to a degree, rationalise, define and understand. None of this is accidental; with John Williams everything is deliberate; everything is there for a reason. How many times did a note stay the same but the intervallic context change? How many chords relied on inversions, extensions or clusters to transport emotionally and communicate their subtlety and emotion? This is how we blur what music is, lessening its absolutes, challenging expectations and assumptions, defying normality and progressing film music.

Another section from the Close Encounters offers a simple two-chord sequence which conveys an enormous sense of drama, gravity, suspense but also child-like simplicity. Any chord sequence which succeeded in creating such an Aladdin’s Cave of emotional riches must surely have been altered. The musical notation displays some of the reason why the chords transport emotionally and have an almost dream-like context. Ignoring the top ‘melody note’ and looking at the main body of the chord - going as it does from 5-part to 4-part harmony – we can see that the contrary motion in the harmony offers the feeling of ‘contraction’. However, the ‘intervallic example’ of the chord sequence (below) reveals that the feeling of contraction is simply a surface-level musical one. The intervallic values show the centre of the chord (5 3rd 1st) staying static but the bottom two notes merging and dropping.
On the left we have the musical explanation for the chord. To the right we have the intervallic context. Part of the reason these chords communicate so well is because the change from one chord to the next is subtle, faint and understated. This is caused partly by the difference in the musical direction of the notes and the corresponding intervallic context of the intervals they represent.

Fig.33 Audio, ‘TV reveals’

Much like his two-note Jaws theme, the iconic ‘five-tone’ motif for Close Encounters has since become ingrained in popular culture (in the film the five tones are used by scientists to communicate with the visiting spaceship as a mathematical language as well as being incorporated into the film’s signature theme).

Fig.34

What is it about the theme that communicates so well? Its pivotal narrative use within the film itself is not enough to have propelled this into popular culture. The music itself must not only be able to create a memory of the film, it must also work unilaterally in a musical way, which means it must be distinctive and striking. Rhythmically it is compact and concise, suggesting a bar of 4/4 ending on the first beat of bar two. It is rhythmically easily digestible, which gives the harmony free run to communicate. The melodic line is not alone; as we have established elsewhere the concept of a melody existing without inferred harmonic accompaniment is virtually impossible because listeners search for harmonic context in order to enjoy it and rationalise a melody which is delivered ‘a cappella’. Harmonic suggestion is only something we can ‘turn off’ if the melody is not built around a key centre.
The melody here is obviously suggestive of the chord of G given that four out of the five notes are from the chord of G and the other note (the A) is still from the scale of G. So, within this seemingly rather obvious melodic shape, what elements make it communicate? Firstly the most obvious reason, as alluded to already, is that it conveys a chord without stating it; the harmony is delivered subtly, horizontally. It reveals, rather than states. It divulges rather than declares. Secondly the last three notes are similar to Star Wars and Superman in that they contain octaves and fifths which (as we have established elsewhere) are heavily implicit of power and authority. The final touch, the most important element, is the unavoidable soft emotion and sentiment created by the add2. This entire line basically says ‘Gadd2’.

**BATMAN RETURNS Danny Elfman**

We now turn to the compositional style, harmonic workings, voicings and orchestration of Danny Elfman’s *Batman Returns*, orchestrated by Steve Bartek. Director Tim Burton, referring to the music of Elfman on an earlier film, but one which determined his distinctive style, said “There was no temp track. It was purely Danny”. Ironically by the time it got to *Batman Returns* the only temp tracks in the back of Burton’s mind were the successful scores Elfman had himself composed. Elfman had done that great thing; he’d created a ‘style’ which was instantly recognisable. So, moving now to Elfman’s style, the following quote is interesting.

> “Elfman lacks only conventional musical training. He appears to have acquired traditional skills, such as notation and transcription, but has come to them through a typically popular music learning method of listening”

Janet K Halfyard,  
*Danny Elfman’s Batman*

As Halfyard states, Danny Elfman has developed highly attuned listening skills which are sadly perhaps sometimes lacking in ‘traditionally’ taught composers. The whole manner of his musical upbringing and the means by which he arrived into film scoring are refreshing. One cannot overestimate the importance of the ‘self-taught’ aspect. I’m not suggesting no one should ever be taught music, but I am suggesting that musicians and composers who enjoyed an element of self-teaching possess an imagination and desire that we sometimes don’t hear in some solely and traditionally taught composers. In order to compose we must improvise but improvisation has never played a great role in traditional music tuition.

His ‘self-taught-ness’, together with his love of Ska (particularly The Specials and Madness) are some of the many things that define Elfman as being an original composer; in short, he thinks differently and brings radically influences to the film music table. Certainly to some what distinguishes Elfman is his close relationship with his own music and with his orchestrator Steve Bartek. One cannot over-play the importance of composition and orchestration which are compatible with each other. The orchestrations are clear, lucid and dramatic; they sound real, open, accessible and close-up. For a change they lack the aural Hollywood gloss one normally finds in symphonic film orchestrations. Steve Bartek’s vibrant orchestrations match perfectly Elfman’s flamboyant and vivid writing. The processes of composing, arranging and orchestrating sound as if they are conceived as one event, from the same person.

The arranger and the orchestrator

> “Maintaining it all in my head gets harder and harder. I can write a fairly elaborate sketch – 12, 14, 16 staves of music – but I rely on my orchestrator to put it into legitimate context” - Danny Elfman

Janet K Halfyard,  
*Danny Elfman’s Batman*
In Elfman’s case what is clear is that he does the arrangements and Bartek does the orchestrations. So in this context what’s the difference between an arranger and an orchestrator? We associate the term ‘arranger’ with smaller units such as big bands, concert bands, pop ensembles etc, and we associate the term ‘orchestrator’ with much bigger situations like a symphony orchestra. But this is not the only way to interpret the difference between arranger and orchestrator; in broad film music terms the arranger (usually the composer) decides what instruments to use and how and when to use them, stylistically and contextually. He or she provides detailed but often scaled-back sketches, perhaps on seven or eight staves. Orchestrators then interpret this in a much more literal, specific and larger sense, making decisions about divisions within orchestral parts and deciding how to extract the composer-arranger’s wishes. Elfman is a great exponent of the inversion as a writing tool. Also he is arguably one of the biggest key-changers in the business too. Certainly the musical style which served him so well from Batman right through to Spiderman is primarily based on a rapid, often disorientating fast-paced navigation through a maze of key centres and applying various themes and ideas onto different parts of the orchestra.

Take the section below from the beginning of his ground-breaking score for Batman Returns. Essentially it is the same idea in five keys with various inversions and orchestration styles (strings, organ, choir etc) to break the monotony.

Fig.35 Audio, Birth of a Penguin – part 1 – Movie 00.00.01

The entire first section of the film features practically continuous music, during which there is no dialogue at all. This is a perfect marriage of music and picture. The music of Elfman provides an excellent introduction to the film and defines Batman Returns in the same way that his music for Edward Scissorhands remains one of the main prisms through which people remember it.
As always the key question is ‘why’. Why and how does the music work so well? How and why does it conjure up the right emotional state in the viewer/listener? The melody alone, as we can see from the line below, is characterless and repetitive.

Context is everything; so what is the context which so defines this theme? In the same segment below the harmonic contours which so determine the success and emotional communication of this piece are highlighted. The contrary motion displayed by both lines is a great indicator of how music ‘breathes’. The melody here is basic and unremarkable; what brings it to life are the harmonies which surround it and therefore identify and define it. Because film music lacks words to sully or confuse its emotional impact, it is reliant more on the internal workings of the counterpoint and instrumentation.

Elfman and his orchestrator Steve Bartek have created vibrant arrangements which have become synonymous with the compositions they define but which also deserve study in their own right. Elfman and Bartek’s use of the Celeste is effective. The Celeste has come to be associated with mystery, fantasy and ‘things not of this world’. In Batman Returns and Edward Scissorhands Elfman and Bartek use Celeste to portray characters whose ‘innocence’ stems from being dislocated from our own reality, which makes them potentially frightening and scary. The use of voices, another big Elfman / Bartek characteristic, particularly children and women’s voices, are often found in films dealing with horror, danger or the supernatural. In Batman Returns and Edward Scissorhands the wordless boys’ choir lends the film a sense of ‘twisted Disney’ scoring, managing to evoke something of choirs used in films like Pinocchio.

Two notes are particularly effective and communicative in the opening segment of Batman Returns: Db and Bb. They communicate because they represent the tension within each bar in the first four bars of the melodic figure. They also communicate because the notes remain the same but their meaning changes; same note, different intervallic meaning. The Db functions as minor 6th (bars three and five) and flattened 9th in bars four and six. In addition the Bb functions as 4th (bars three and five) and 7th in bars four and six (this is detailed in fig.38).
In both cases the Db creates a greater effect than the Bb (the minor 6\textsuperscript{th} is more dramatic than the 4\textsuperscript{th} and the flattened 9\textsuperscript{th} more dramatic than the 7\textsuperscript{th}). This complex information lies at the centre of how and why the segment communicates.

The section below is an excerpt from the opening sequence of *Batman Returns* and features a combination of Celeste, choir and the use of inversions which so colour Elfman’s work. First let’s look at the piece with accompanying chords without inversions, in root position.

*Audio - Birth of a Penguin - part 2: 01.31 – Movie 00.03.48*

Bars three, four and five are identical in terms of chord accompaniment.
The use of inversions alters the harmonic dynamic, subtly challenges the expectation of the listener, but also allows for an ascending bass line, which functions as a dramatic counter melodic figure.

**EDWARD SCISSORHANDS** Danny Elfman

*Edward Scissorhands* is a 1990 fantasy film directed by Tim Burton; it is the story of an artificial creation called Edward, who has scissors for hands (the reason being that his creator died before completing him). Edward lives alone in the archetypal gothic mansion but is ‘taken in’ by a suburban family and falls in love with their teenage daughter Kim. The Inventor of Edward was played by Vincent Price in what was to become his final performance. The main themes deal with self-discovery and isolation but there is also more than a nod towards Frankenstein and even Pinocchio. Ultimately Edward is unable to consummate his love for Kim because of his appearance, so the film can also be seen as being influenced by *Beauty and the Beast*. The film is book-ended by Kim Boggs as an old woman telling her granddaughter the story of Edward.

The film was the fourth film collaboration between Burton and Danny Elfman and for *Edward Scissorhands* Elfman produced a masterpiece. As with *Batman*, Elfman had no temp track to clutter his thoughts.
Once again Elfman makes expert and dramatic use of the inversion as a writing tool; the initial introductory quavers are based on the 1\(^{st}\) inversion (bar one), root position (bar two) and 2\(^{nd}\) inversion (bar three).
Although this may seem like an innocuous observation it is an important reflection because listeners are seduced into presuming the reason for the effective and enchanting beginning is totally the result of the distinctive instrumental qualities. The use of inversions is perhaps much more vividly demonstrated in bars seven, eight and nine (Cm/Eb, F and G chords); the bass has its own direction and it is the harmonic dynamic and drama created by the inversion that defines this group of chords.

What’s also worth mentioning at this point is the slightly dense crunchy harmonies in the lower strings, particularly in bars eight and nine. Below I have transcribed the same chords, twice; firstly in bars one, two and three of fig.42 I have scored the chords more safely, avoiding ‘lumpy’ voicing and in bars five, six and seven I have transcribed as per the voicings Elfman and Bartek used. Again, this might seem like an innocuous observation but the point is that the ‘lumpy’ voicings (in this case essentially the low 3rd) can help in italicising and intensifying the chords. Low and lumpy voicings aren’t generally speaking always a great idea; a more traditional spread of harmonies usually articulates the chords cleaner. Also there is also a limit as to how low you can go with lumpy harmonies. If you played the last two chords (F and G) of fig.42 on a piano keyboard and then tried the same close-part harmonies on lower chords, (E, Eb, D etc) there would come a point where voicings ceased to penetrate in a way which made the individual notes work at all. The F chord Elfman uses is pretty close to the boundary.

There are some interesting chord shifts in bar twelve and thirteen (of fig 41); the D bass underneath the G chord allows for a smooth transition from the preceding Cm but it also makes the move from G/D to Ab less chromatic than it would have been if the G had been in root position. Also the move from the chord of G (bar fourteen) to Db is interesting; the #4 chordal manoeuvre (as we have established countless times before) exudes a strange and enigmatic air.

With regard to the ‘tune’ (from bar nineteen of fig.41) it’s interesting to note Elfman’s use of the Fm6 chord (bar twenty-seven, twenty-nine and thirty-two). The use of the D note (maj6) in the minor chord creates a sense of surprise and romantic warmth. If we examine the Fm6 (or any minor chord with a maj6) we can see that one of the reasons for its specific charm is that it is only one note away from being a diminished chord, which goes some way to explaining its aural characteristics; indeed in bar twenty-eight, with the B melody note, we do have, in essence, a diminished chord, at least for the first two beats. Like other, similar types of chords we examine during the course of this book, perhaps the charm of the m6 is that it is nearly something else; it suggests and it implies but it does not quite state.

Moving now to the other great theme from Edward Scissorhands, ‘The Ice Dance’, we can see how Elfman extracts the maximum emotional benefit from simple harmonies through the prism of understatement and the power of the inversion.
The use of horizontal harmony and inversions means the differences between the Bb and Dm chordal suggestions are subtle. By way of a more detailed explanation in fig.44 I have transcribed root positioned voicings of the chords of Bb and Dm in bars one and two. In bars three and four I have transcribed the same chords but with the Dm inverted. The lack of physical movement between the top two notes in bar three and four italicises the simple fact that only one note actually changes physically in the two chords. We tend not to notice this fact when faced with the root positioned chord change; we have the sense that all three notes move when in fact only the bottom note (Bb) has gone and an A has appeared.
Of course what does change is what the notes mean, i.e. what their intervallic context is. The D and F notes in bar one and three represent the 3\textsuperscript{rd} and 5\textsuperscript{th}, whereas the self-same notes function as the root and 3\textsuperscript{rd} in bar two and four. This intervallic change is what makes the two chords sound different; when the two chords sound different (whether inverted or not) what we respond to isn’t what the notes ‘sounds’ like but what their intervallic function is. The point is that when we invert the Dm over the A bass we simply exaggerate and italicise the fact that the D and F are stationary as notes; we draw out the fact that only one note changes physically. The reason this has such a interesting effect on us is that when we hear the chord transition we hear the slightly contradictory feeling of something moving but also not moving. It is this experience which makes the chord sequence in bars three and four (of fig.44) smoother than the one in bars one and two. The fact that for the most part the harmonies in the main transcription (fig.43) are delivered horizontally is what makes the differences even more subtle. In short we are given lots of information but most of it is inferred and suggested which makes it more understated, delicate and restrained.

**District 9 (Clinton Shorter)**

*District 9* is a mock documentary-style South African science fiction film directed by Neill Blomkamp; it was nominated for four Academy Awards in 2010, including Best Picture, Best Adapted Screenplay, Best Visual Effects, and Best Editing. The story centres on a race of aliens, which appears firstly in an enormous mother ship hovering above Cape Town and then amongst the local population. The aliens are eventually forcibly relocated to ‘District 9’. The film clearly centres on themes of humanity, xenophobia and social segregation; *District 9* was inspired by events that took place in ‘District Six’ in Cape Town during the apartheid era, where 60,000 people were forcibly removed and relocated to allow for a ‘whites only’ district.

One of the film’s main points about ‘inhumanity’ is the irony of how the character Wikus (charged with the responsibility for moving the aliens) is infected by them but becomes more humane as he gradually becomes less human. The aliens are regarded as ‘prawns’ in the movie and Chris Mikesell from the Hawaii newspaper ‘Ka Leo’ wrote: “Substitute ‘black’, ‘Asian’, ‘Mexican’, ‘illegal’, ‘Jew’ or any number of different labels for the word ‘prawn’ in this film and you will hear the hidden truth behind the dialogue”. The reason I mention so much about the underlying themes of the film is to frame the importance of the music, which was scored by Canadian composer Clinton Shorter. Director Neill Blomkamp wanted a score that maintained its South African roots. Shorter found South African music to be generally quite optimistic and joyful, which didn’t chime with the director’s wish for a ‘raw’ sounding soundtrack. In the end Shorter used a combination of Taiko drums and synthesizers, with the African elements of the score conveyed in some of the vocals. This approach is perhaps best displayed in the main theme from *District 9*, part of which is transcribed below.

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**Fig.45 Audio – ‘Main Theme from District 9’ Movie - 01.33.04**
Undoubtedly the striking synth textures and particularly the distinctive vocal qualities and characteristics play an enormous part in the effectiveness of this piece. But similar to The Ice Dance from Edward Scissorhands the piece makes a virtue out of the interaction between two chords which sound different even though only one note separates them; in other words what makes them sound different is partly a physical note movement but mainly the way we personally hear and interpret the intervallic change in the static notes.

Examples of this are the first chord of Cm/G moving to Ab (one physical change, two intervallic changes) and the Eb/G moving to Gm (bars seven-eight and eleven-twelve, one physical change, two intervallic changes). There is a great sense of evolution and development in the piece; the first eight bars have a descending bass contour whilst from bar nine to fourteen the bass movement is consistently upwards (highlighted). The inversions therefore, as usual, serve two purposes; they cause drama and also allow for a consistent bass movement. This piece appears towards the end of the film and although it works well within context of the scene, it also functions as a wider emotional commentary on the film. The music, when immersed with the narrative of the film, is pensive, brooding and reflective; contemplative and thoughtful.

All in the name of economy

By way of summing-up some of the issues in this chapter, its worth reiterating that successful composing, professional composing, is at least partly about economy. One of the many skills common to most successful composers is the ability to economise, to plan, to build but to let the music breathe. Successful film music is where no phrase seems too long or short for the scene; it is where melodies work perfectly with accompanying chord sequences and it is about harmonies and chords that sound like they belong together, like there is an inevitability to it; as if you can’t envisage it any other way. But economy of purpose also comes into it; the ability to decide, commit and finish. The world is full of wannabe composers, many of whom have a house-full of ‘nearly finished’ ideas. They can play you ‘bits’ but rarely the finished article. This is because one of the most crucial abilities a composer needs is the ability to ‘finish’; the ability to zip it up, formalise it and be judged. The nearer the end you come to a piece, theoretically the more it ties itself up, sorts itself out, limits the possibilities open to you and closes off alternative avenues which are no longer appropriate. In many ways this is how the composition itself rationalises what it is. Finishing a piece can sometimes seem like an exercise in compromise; this is where the different sections suddenly have to tie together. Like any process, the end often involves contraction, consolidation and compromise as the piece slips into place. Again, this is about economy.

The end of the process of composition should be the most predictable and unsurprising aspect of the whole thing. If your piece is structured coherently with direction, it should contract and disappear down the plughole of an almost inevitable completeness, right in front of you, as you near the end. But it is precisely this process which, ironically, alienates many composers and disables them from ‘finishing’; from becoming ‘proper’ composers. This is because for many people the process of trying out ideas is what drives them. This is art’s comfort zone, its relaxation area; the ‘green room’ of creativity. Endless pontificating is exciting, non-committal and relatively stress free. But committing your ideas to a finished version brings the sobering context of reality into the equation and highlights the eternal fear of the end; of being judged.

The same mental process that makes many composers endlessly apologise in advance of a performance of something new is the same process that sometimes prevents them from ‘finishing’. It is a lack of self-belief which translates into a reluctance to complete. Earlier in the book we looked at the issue of musical improvisation, specifically how tied it was to the concept of verbal improvisation. To revive this theme briefly, there is a link to the current topic of discussion, namely the inability of some composers to ‘finish’. Think of how many people speak to each other without actually zipping up the sentence properly. How many times have you known a sentence to be left hanging; there is no need to finish it because it has been understood. People who do finish sentences coherently and emphatically even seem to appear unnecessarily formal in their delivery. The process of composition must finish emphatically; formally.
It has to have structure which binds it together, and the way all the loose ends tie-up essentially represents the final context of how it will be judged. If composers don’t do this, music ceases to ‘fit together’ as convincingly as it should.

The need for composers to economise comes up again and again. Sometimes we come across iconic/famous ideas which, if they’d continued for much longer, would have ceased to be effective. Alternately we sometimes come across ideas which, had they been shorter, would have not possessed the gravity and drama which so defined them. People always assume the ‘idea’ is everything. But the idea is actually nothing without the ability to deliver it safely to the context which will ultimately define it. This is about economy and rationalism, the twin skills which are often the difference between success and failure. We find major skills in any successful composer are the ability to know when enough is enough and the ability to ‘close it down’.