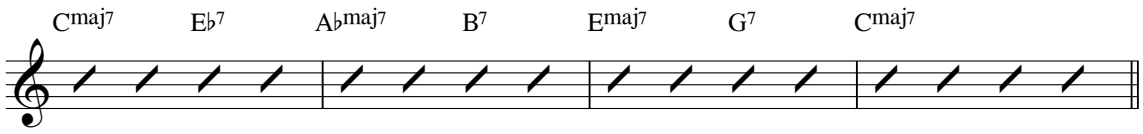
The Coltrane Matrix: Introduction

The Concept

The Coltrane Matrix (also known as the “Coltrane changes” and the “Coltrane cycle”) is a staple in modern jazz harmony and improvisation. The harmonic centerpiece of John Coltrane’s jazz classic, *Giant Steps*, the matrix itself is a tonal cycle in which the octave is divided into three equal parts (descending major thirds). In the key of C major, for example, it would be:

C-Ab-E-C

This is converted into a harmonic cycle by beginning each modulation with a dominant 7th chord moving to tonic:



Coltrane also used this matrix to re-harmonize some of his other compositions, such as *Countdown* (a re-harmonization of the Miles Davis’ *Tune Up*), as well as a superimposed harmonic cycle to improvise on several different “ii-V” based standard song chord progressions.

This book deals exclusively with this matrix, and aims to offer some different (perhaps less typical) ways to approach this intriguing chord progression.

Some years ago I became interested in practicing over *Giant Steps,* mostly because it seemed like a challenging and highly effective means of learning how to connect chords and key centers together. Much of my work in the beginning was dedicated to being able to move smoothly (lots of voice leading) between the hugely shifting modulations of the matrix, while at the same time maintaining the color identity of each chord.

After achieving reasonable proficiency in this area, I began to look at other ways of playing over these changes. In essence, I was trying to find a way to sound less “Giant Steps-y” (less obvious voice leading, less scalar movement, fewer movement clichés, less emphasis and outlining of the chords, etc.), and play more freely (yet still connected to the harmony). So I began to work out different ideas and explore certain concepts. The material in this book documents some of my explorations.

In passing years, I've used the Coltrane Matrix as a template to work out specific ideas, as well as to practice general concepts, or to address specific improvisational issues and interests.

The *40 Original Melodic Ideas* represent what I consider to be the most significant of my explorations (in terms of how they've changed my thinking and/or honed my skills).

Here are some of the specific concepts expressed in these 40 melodic ideas:

- Upper partial triad harmonic substitution
- Triad pairs
- "False", or implied resolutions
- Wide intervals (such as 4ths, 5ths and 7ths)
- Symmetrical scales (such as the augmented scale)
- Polymeter (such as 3/4 over 4/4, and 5/8 over 4/4)
- Intervallic shapes to imply harmonic movement
- Rhythmic displacement
- Pedal tones to minimize harmonic movement
- Harmonic major tonalities
- Tritone movement relationships

Most of these melodic ideas are improvisations (as I kept a particular topic, or aim in mind) that I liked well enough to compel me to write them down. Others are simply specific patterns that I've thought about and worked out in all 12 keys (again, that I think are interesting ways to approach the Matrix). The rest are improvisations that I just stumbled upon, with no particular aim in mind (these I sort of analyzed after the fact). Each of these ideas is *unique to me* in either its conscious conception or its discovery and execution (hence the name, *The Coltrane Matrix: 40 Unique Melodic Ideas In All 12 Keys*).

The aims of this book

This material will be most beneficial if you have a decent working knowledge and experience with the Coltrane Matrix. It is not meant to be a book introducing the Matrix, or delving deeply into any theoretical examinations of its structure, origin, etc. (There are several good books out there that do just that.)

The melodies and concepts in this book are far from basic, and assume an intermediate to advanced knowledge of jazz harmony and application. I believe studying and practicing the material in this book can:

- Broaden your imagination, approach, concept and ear as you play over *Giant Steps*, or any of the other Coltrane Matrix based jazz compositions.
- Increase your understanding of less obvious (yet interesting) harmonic and tonal relationships and possibilities on *any* chord changes.
- Introduce and/or further develop your skill with such modern jazz concepts as polymeter, triad pairs, unusual interval shapes, symmetrical scales, etc.
- Improve your technical skill, and improvisational fluency and freedom.

My hope is to *pique* your imagination. To get you to think more deeply as you explore the materials of music (and to grow your ears in the process!)

But even if you don't possess the theoretical knowledge to fully realize and understand the material, you'll still benefit from practicing these melodies. You'll challenge and improve your technique, rhythmic conception and ear (sight reading, too).

The Format

I've presented these melodic ideas in three formats:

1. A reference with all 40 ideas in the key of C
2. A reference with a brief description/explanation of each idea
3. The 40 ideas notated in all 12 keys

The range never exceeds that of the saxophone (Bb below middle C up to F# above the staff in treble clef), but I've tried to keep most of the melodies away from those extremes where possible, with the aim of keeping the range more "neutral" (if there is such a thing). Each idea modulates around the circle of keys, either moving up a perfect 4^{th} or down a perfect 5^{th}. Of course, depending on which instrument you play, you might have to make some octave transpositions.

As far as accidentals and enharmonics, I've tried to be as consistent as possible. I've purposely avoided double sharps and double flats. I've made certain enharmonic choices based upon the notes' relationship to the harmony, and at other times, to keep a consistency within the melodic line itself (for example, to demonstrate a particular harmonic substitution or tonal center) and still at other times for the sake of reading. I've done this in a way that makes most sense to me. I hope it does to you, as well.

The basic rhythmic material of all the patterns is the eighth note. I do add the occasional quarter note (and rest), but purposely avoid triplets and sixteenth notes. I did this for the sake of clarity (especially for the polymetric ideas), and melodic flow (especially for the more tonally based ideas). You can feel free to alter rhythms if you wish.

The descriptions/explanations I've included in the reference are cursory, and are meant to give but a brief description of my own conception, intention and understanding of each melodic idea. I've been intentionally non-comprehensive with these words (keeping it more open-ended for interpretation). I invite you to make a note-by-note analysis, if you so desire.

How to practice this material

The sequence of these 40 melodic patterns is completely random, so there's no special order that you need to practice them in. I would, however, suggest doing the following:

1. Play through the *40 Unique Melodic Ideas Over The Coltrane Matrix* reference (the one *without* the explanations) first (Reference 1), to get a feel and flow of how the melodies move over the Matrix.
2. Play through the reference with the descriptions/explanations (Reference 2). Read and reflect upon each one, paying particular attention to the ones that interest you most.
3. Follow your interest. Go to the *40 Melodic Unique Melodic Ideas In All 12 Keys* and work on the ones that interest you most in all keys. Be able to sing any melody that you work on, and aspire to play it relying as little as possible upon the written page

It's a good idea to practice these melodies (at some point, anyhow) with a backing track, so you can hear the ideas in context with the harmony. I've made one available (at a easy/medium tempo; C, Bb and Eb instruments) for free download on my blog.

As a final thought, I encourage you to stay open minded about what you *hear* as you first explore these melodies. To me, they all have meaning and clear intention, and sound melodic and cogent. If a particular melodic idea doesn't appeal to your taste right off the bat, move on to one that does (see number 3, above). But please consider returning to some of the others after you've spent some time with the ones you like. You might be surprised at how your perception changes (or doesn't). No matter what, aim at putting some of these ideas into practice on tunes and other forms that you improvise on. Tweak them, change them completely, turn them upside down or inside out. Have fun with them. Best wishes!