

DISCLAIMER/WARNING/CAUTION!!!

Please be advised that the author and publisher take no responsibility whatsoever for any (and all) accidental and inadvertent self-inflicted injuries that may occur from exploring the material in this book. (This is especially relevant in regard to the left hand fingers, wrist, forearm, shoulder, muscles, tendons, bones, cartilage, nerves, etc., et al.)

Any guitarist who works with this book is going to be exposed to literally hundreds of chords that involve stretches and fingering configurations that will be totally new and unfamiliar. Be particularly cautious with **descending** voice-leading that move **down** the fingerboard. With each new descending chord, the distance between the frets gradually increases.

Each (and every) guitarist must continuously monitor the sensations they perceive in their left (fingering) hand. Error on the side of being overly careful. "No pain—is the way to go." Perhaps it would be even better to put it this way: "Not even the slightest hint of any discomfort—is the way to go."

The problem lies with the fact that a large percentage of this material is going to be new to pretty much every guitarist who begins to work with it. When guitarists get a chance to play a whole bunch of stuff that is not only new to them, but also has a uniquely different and compelling sound to it, there is a tendency to want to overdo it. All these new sounds can have an almost narcotic-like effect. The ear perks up; the mind comes into sharp focus; the emotions begin to soar; the imagination begins to project a future when you'll be able to use all this great stuff to completely blow people away(!)...all at the expense of your left hand which, at this point, starts to feel like it's just been run over by a truck.

You just got caught up in "seduction by novelty." You stopped monitoring the sensations in your left (fingering) hand. You did too much. You over-extended your physical limits. You over-stretched. You had a nice ride, for sure. But now you'll have to pay the price for days, weeks, possibly months. (Believe me, I'm not exaggerating!) In some cases, the damage could involve years of recovery time. Occasionally, it could cause damage **beyond** recovery time. The word for that is "permanent." The phrase in sports terminology is "career-ending."

Think about it —Picture yourself with permanent damage—Now what?

Q: Mr. Goodchord, are you trying to scare us?

A: You got that right!

You must exercise your sensitivity, your intelligence, your caution and your good judgement. No one else can do this for you. Only you can. And when you do, there should be **no problem.**

You have been WARNED! (Please take good care of your hands!)

IT'S ALL YOURS...

A Message To All Composers And/Or Arrangers:

Mr. Goodchord would like to inform you that any and all music that you are able to compose/arrange by using any [and all] material contained in these books is completely [and entirely] your own. We are making this material available to as many musicians as possible [world-wide] just in the hope that much great music will result.

Our Universal Notation System™ was created [and has evolved] to insure that all of you who use this material can feel secure in the knowledge that what you do with it is yours, and you would never have to worry about us claiming that "they got that from us..."

Our intention from the start was just to present all of it in an intelligent manner that guaranteed that all who made use of it were completely free to do anything [and all things] with it.

As long as you use standard musical notation, and/or tablature, or some other system, we have no claim at all for what you do.

It's ALL YOURS!! Here's to a lot of great music for the future!!

WELCOME TO VOLUME II

This present book finishes the task (begun with Volume I) of completing "The Mother Lode." (Fellow guitarist Joe Diorio came up with this name when he received an advance copy of Volume I.) Both volumes combined contain 600-plus pages. Are you ready for some assembly? Do you have batteries?

In Volume I, all the chords have names.

In Volume II, none of the chords have names.

You may be asking "Why is that?"

I would answer that it seemed like a good idea at the time...

Actually, the reason that all the chords in Volume II are left nameless is that the names one might use get complicated. [Cmaj9th(no5th), for example.] Also, these names could easily tend to limit how the chords could be used. Since the chords in Volume II revolve around structures of 4th intervals and 2nd intervals, they are more ambiguous sounding than the structures in Volume I. Also, in many cases they are more flexible in terms of multiple functions. But the truth be told, "it just seemed like a good idea at the time..." (and I'm going to stick with it!)

WELCOME TO VOLUME II (continued)

I'm assuming that anyone who has this new Volume II in their hands has already been working with Volume I for a while. This way, the text from the first book does not need to be repeated here...(except for the "Disclaimer/Caution/Warning!!!" page, which always needs to be repeated!) However, it would be good to keep in mind that many of the ideas in this text for Volume II are retroactive. That is to say that they apply to both books.

I would imagine that people are beginning to see that these books are not just for guitarists. These books are for all musicians. In fact, it is probably becoming clear that pianists, composers and arrangers have a great advantage in that they don't have to be concerned with the limitations of the guitar. (We guitarists know how very fortunate they are...)

Volume II contains 3-part 4ths, 4-part 4ths and spread clusters voice-led through all 6 cycles in C Major, C Melodic Minor and C Harmonic Minor. If we add this material to all the material in Volume I, we have "The Mother Lode." (We'll start referring to it as the M-Lode...)

WHAT IS THE M-LODE?

Here it is:

3-Part Structures		4-Part Structures	
Triads	(Volume I)	7 th Chords	
		TBN I	
		TBN II	
3-part 4ths		(Volume II)	4-part 4ths
			Spread Clusters

It would seem that the main focus is on 4-part structures and that the 3-part structures are used as "supplements." If you look at all of the material in Volume I, you would see that it's all triad-based. The triads are triads. The 7th chords are a triad plus another note. TBN I is a triad plus another note. And TBN II is also a triad plus another note.

What Volume II does is to complete the M-Lode by introducing 3-part 4ths (as a supplement) and then introducing 4-part 4ths and Spread Clusters. (I know that the term SPREAD CLUSTER makes many people think of JUMBO SHRIMP, but what the heck...)

So, now you've got the complete set of 5 families of 4-part chords: 7th, TBN I, TBN II, 4-part 4th, Spread Cluster. What follows next is very important:

THERE ARE NO OTHER TYPES OF 4-PART* CHORD FAMILIES WITHIN THE 3 DIATONIC 7-NOTE SCALES WE ARE WORKING WITH!!! (MAJOR, MELODIC MINOR, HARMONIC MINOR) {*4-part being defined as "containing 4 different notes"}

3-PART 4THS

Volume II begins with 3-part 4th voicings (and their spread counterparts, 3-part 5ths). You need to be aware of some enharmonic problems that occur when we get to C Melodic Minor and C Harmonic Minor.

The problems involve the interval of a diminished 4th. To be more specific, we're talking about B and E_b. A diminished 4th looks like a 4th on the staff. But the sound is a Major 3rd. [B and D#] Consequently, chords that contain the notes B and E_b don't sound like 4th voicings. Let me list them for you.

From C Melodic Minor and C Harmonic Minor:

$$\begin{array}{cccccc} E_b & F & B & B & E_b & F \\ B & E_b & F & E_b & F & B \\ F & B & E_b & F & B & E_b \end{array} = F_{\text{min}}7^{b5}(\text{no 3rd})$$

From C Melodic Minor ONLY:

$$\begin{array}{cccccc} A & B & E_b & E_b & A & B \\ E_b & A & B & A & B & E_b \\ B & E_b & A & B & E_b & A \end{array} = B7(\text{no 5th})$$

From C Harmonic Minor ONLY:

$$\begin{array}{cccccc} A_b & B & E_b & E_b & A_b & B \\ E_b & A_b & B & A_b & B & E_b \\ B & E_b & A_b & B & E_b & A_b \end{array} = A_b_{\text{min}}$$

That is not to say that there is anything wrong with these voicings. It's just that they don't work very well in a 4th voicings context. And there's a very simple and logical explanation for that... Let's take a closer look at Triads vs. 4th voicings.

Triads are 3-part chords based on tertial harmony (harmony derived from 3rds). 3-part 4ths are 3-part chords based on quartal harmony (harmony derived from 4ths). As it turns out, tertial harmony and quartal harmony are pretty much exact opposites. Let's see how!

3-PART 4THS (continued)

Let's analyze the intervals in all 3 inversions of a triad and a 3-part 4th voicing:

TRIADS				3-PART 4THS						
G		G	} 3rd	G	} 5th	C	} 4th	C	} 7th	
E	E	E		G		G		D		D
C	C	C		C		D		D		D
Two 3rds and One 5th				Two 4ths and One 7th						
C		C	} 4th	C	} 6th	D	} 2nd	D	} 5th	
G	G	G		C		C		C		G
E	E	E		E		G		G		G
One 3rd, One 4th and One 6th				One 2nd, One 4th and One 5th						
E		E	} 3rd	E	} 6th	G	} 4th	G	} 5th	
C	C	C		D		D		D		C
G	G	G		G		C		C		C
One 3rd, One 4th and One 6th				One 2nd, One 4th and One 5th						
TOTALS: Four 3rds, Two 4ths, One 5th, Two 6ths Primary intervals: 3rds and 6ths Secondary intervals: 4ths and 5ths Color intervals: 2nds and 7ths (missing)				TOTALS: Two 2nds, Four 4ths, Two 5ths, One 7th Primary intervals: 4ths and 5ths Secondary intervals: 2nds and 7ths Color intervals: 3rds and 6ths (missing)						

Looks like "Triads are from Venus and 4th Voicings are from Mars!!"

MORE ABOUT 4THS

As mentioned earlier, 3-part 4ths in Melodic and Harmonic Minor have some tricky considerations. [the diminished 4th] Fortunately, those problems don't occur in the Major Scale.

Here's a really great thing to do that is very "guitar-friendly." After you've spent some time exploring the 3-part 4ths in C Major, tune the low E string down a whole step to D. Use the low D string as a pedal, [you could also use the A string] and play through all the cycles! I think you'll be very pleased with the results. {you'd be playing in D dorian mode; since there aren't any "avoid" notes in Dorian, pretty much anything and everything you play will work very nicely!} This approach could also be applied to all the other modes of the C Major Scale, but this D Dorian thing is by far the easiest!

While I'm on the subject, you might also consider the possibility of ARPEGGIATING the 4th voicings to arrive at WAY COOL melodies! [The next time someone calls "So What," or another tune of that ilk, you'll be ready...]

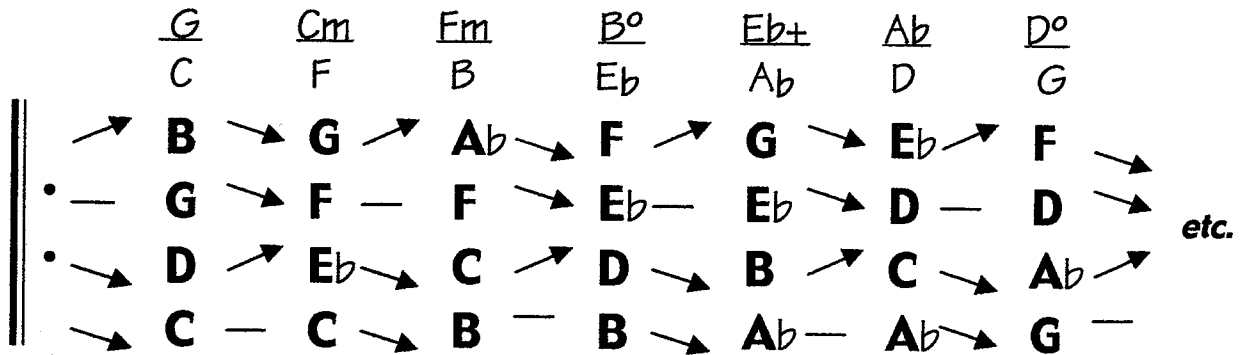
THINGS TO DO WITH THE M-LODE

Everything contained in both books can be approached in a number of ways:

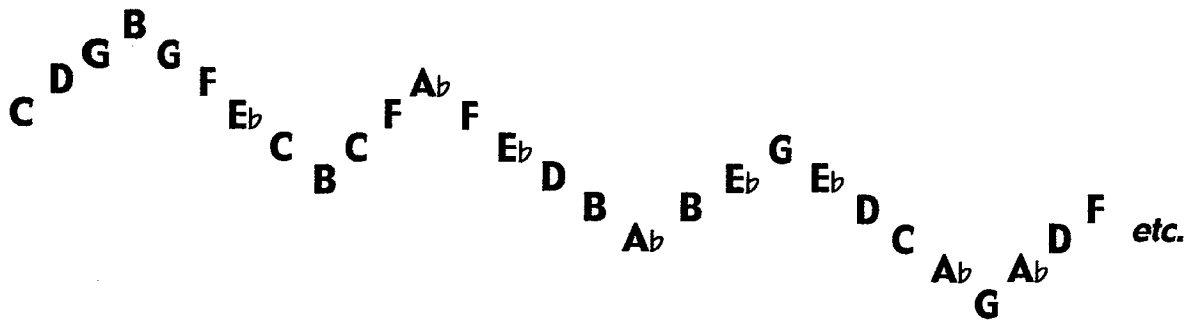
1. melodies
2. arpeggios
3. counterpoint (2 simultaneous voices)
4. 3-part chords
5. 4-part chords

An example of number 1 would be multi-tracking each of the 3 or 4 melodies on a recording device. (Guitar trio or guitar quartet.)

An example of number 2 could be the following:

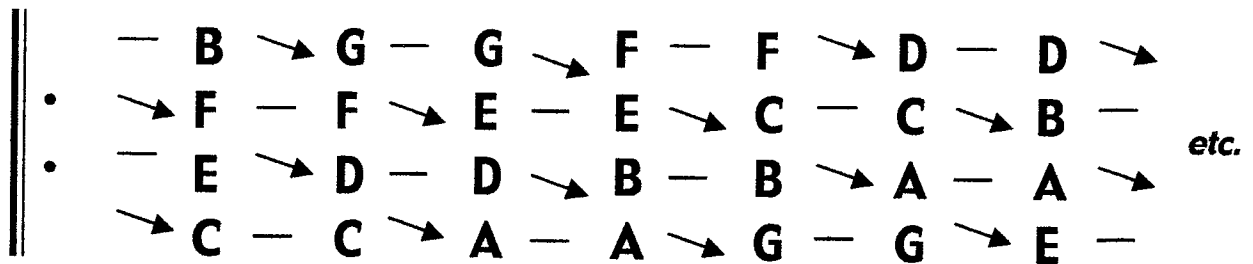


Arpeggiate up the first chord, then down the second chord, up the third chord, down the fourth chord, etc. Here's another way to look at it:

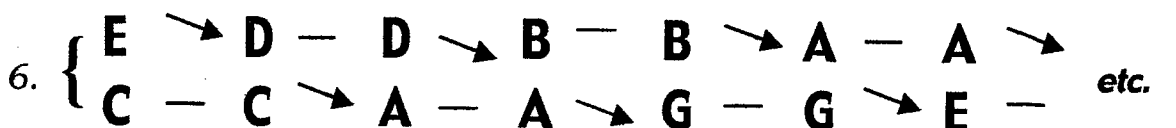
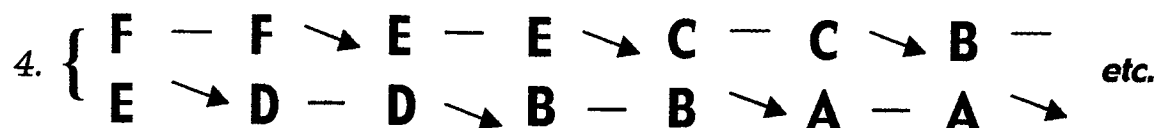
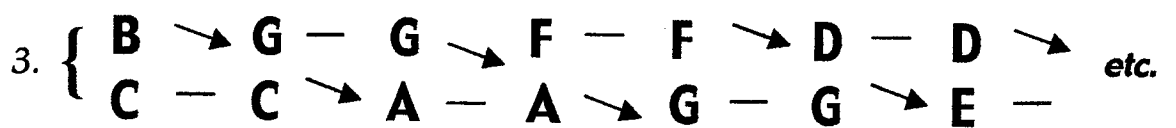
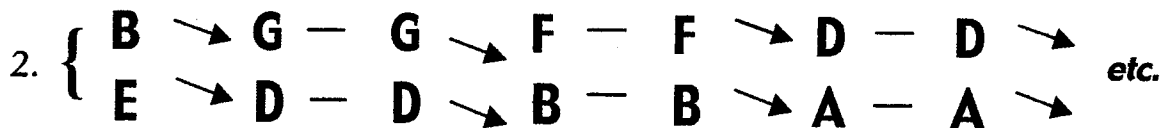


THINGS TO DO WITH THE M-LODE (continued)

An example of number 3 could be the following:



Play all 6 possible combinations of 2 voices:



THINGS TO DO WITH THE M-LODE (continued)

An example of number 4 could be the following:

<u>B^o</u>	<u>G</u>	<u>E_b⁺</u>	<u>C_m</u>	<u>A_b</u>	<u>F_m</u>	<u>D^o</u>				
C	A _b	F	D	B	G	E _b				
—	F	→ G	→ F	→ E_b	—	E_b	→ F	→ E_b	→	
•	→ B	→ A_b	→ G	—	G	→ A_b	→ G	→ F	—	<i>etc.</i>
•	→ D	—	D	→ E_b	→ D	→ C	—	C	→ D	→
→	C	→ B	—	B	→ C	→ B	→ A_b	—	A_b	→

Play all 4 possible combinations of 3 voices:

1.	{	F	→ G	→ F	→ E_b	—	E_b	→ F	→ E_b	→		
		B	→ A_b	→ G	—	G	→ A_b	→ G	→ F	—	<i>etc.</i>	
		D	—	D	→ E_b	→ D	→ C	—	C	→ D	→	
2.	{	F	→ G	→ F	→ E_b	—	E_b	→ F	→ E_b	→		
		B	→ A_b	→ G	—	G	→ A_b	→ G	→ F	—	<i>etc.</i>	
		C	→ B	—	B	→ C	→ B	→ A_b	—	A_b	→	
3.	{	F	→ G	→ F	→ E_b	—	E_b	→ F	→ E_b	→		
		D	—	D	→ E_b	→ D	→ C	—	C	→ D	→	<i>etc.</i>
		C	→ B	—	B	→ C	→ B	→ A_b	—	A_b	→	
4.	{	B	→ A_b	→ G	—	G	→ A_b	→ G	→ F	—		
		D	—	D	→ E_b	→ D	→ C	—	C	→ D	→	<i>etc.</i>
		C	→ B	—	B	→ C	→ B	→ A_b	—	A_b	→	

An example of number 5 could be the following:

Play everything else in both books with the exception of 18 pages of triads and 30 pages of 3-part 4ths!!

PICK VS. FINGERS

I think that it becomes very obvious in the exploring of all of this material, that guitarists who play finger-style have a huge advantage over those who play only with a pick.

In exploring options like counterpoint, 3-part chords and unusual spread voicings, finger-style guitarists can do much more of this material.

Finger-style guitarists can use barres and 1/2 barres and 1/3 barres to get the job done. And they can pluck only those strings that are involved.

[To those of you guitarists who only use a plectrum: There is still a lot of stuff to do with all of it.....Don't be discouraged.....]

OCTAVE INSERTION (another small but important consideration...)

Perhaps we could have used the term "octave displacement," but I prefer to use newer terms when I get the chance to make them up. [A true improviser, I guess.....]

Octave insertion is just what you might guess: inserting an octave between any 2 voices within a 3-part chord or a 4-part chord. [Actually, I guess that we could include 2-note voicings as well...what we're calling counterpoint.]

In Volume I, we provided 6 voicings for a 3-part chord. Lets use the C Major triad as an example :

	G C E		E G C
Close-position voicing:	E G C	Spread Voicing:	G C E
	C E G		C E G

Octave-insertion provides another 6 voicings:

	G C E		E G C
Octave-inserted voicing:	E G C	Spread Voicing:	[octave]
	[octave]		G C E
	C E G		C E G

Again, it would be good to keep in mind that I'm mostly looking for material that might be playable on a guitar!! Guitarists will see that they have already been playing these voicings, but only as part of 4-part chords...

[Of course, all of this applies to the 3-part 4th voicings as well...]

WHAT ABOUT OCTAVE INSERTION WITH 4-PART CHORDS?

Of course it's possible. Again, looking at all of it from a guitarists' standpoint, a couple of options come to mind :

Drop 4 is an option. Some of it is very difficult to play, but some of it is not.

You might also want to look at this option:

Take a drop 2 voicing, and do the "octave insertion thing" between the middle two voices...We could call this a Double Drop 2, Drop 4 voicing. {If you play finger-style, you may be surprised at how well it falls...}

Another option that is a bit more extreme [and only for finger-style guitarists] would be:

Drop 3 and 4

If you happen to be one of our many guests that don't play the guitar, just consider yourself lucky, because you could use these same principles in any way that you can conceive...[Wow!..... are you people blessed!!!!.....]

A USEFUL TIP

In order to explore the 2-part and 3-part options that have been discussed in the easiest possible manner, I would recommend the following:

- 1) Take a blank 4x6 index card and cut it into eight 1/2 inch x 6 inch strips.
[You could also use paper, but the index card is better because of its thickness.]
- 2) Trim off just a bit of the width of all 8 strips.
- 3) Use these strips to cover up different lines [melodies] that need to be omitted in working with the 2-part and 3-part options.

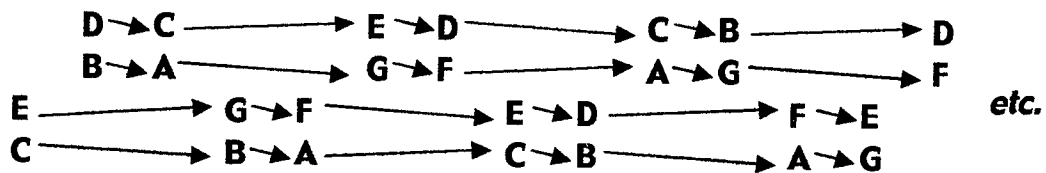
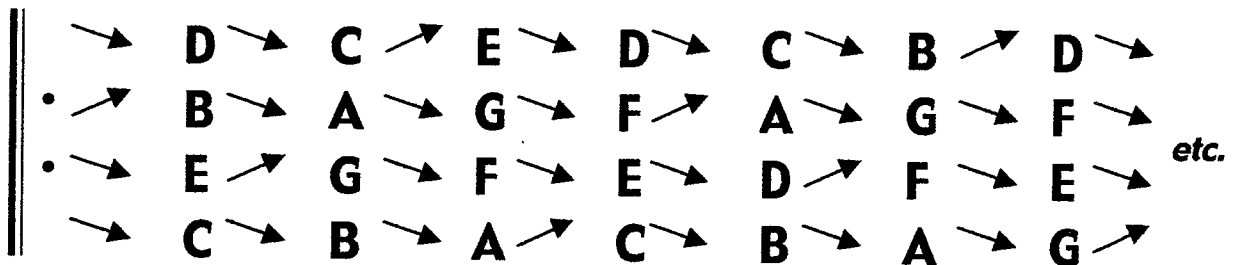
[NOTE: 4 strips would be enough for the 3-part material, but you'll need all 8 strips to do the 2-part stuff. {counterpoint}]

Believe me when I say that it makes it so much easier to work with these other options. [Also, I'd guess that you are beginning to realize that our decision to have the books coil-bound was a good one...]

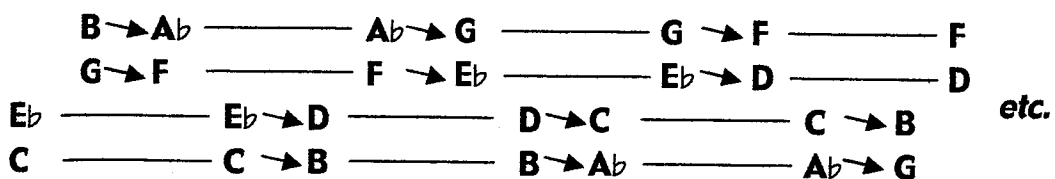
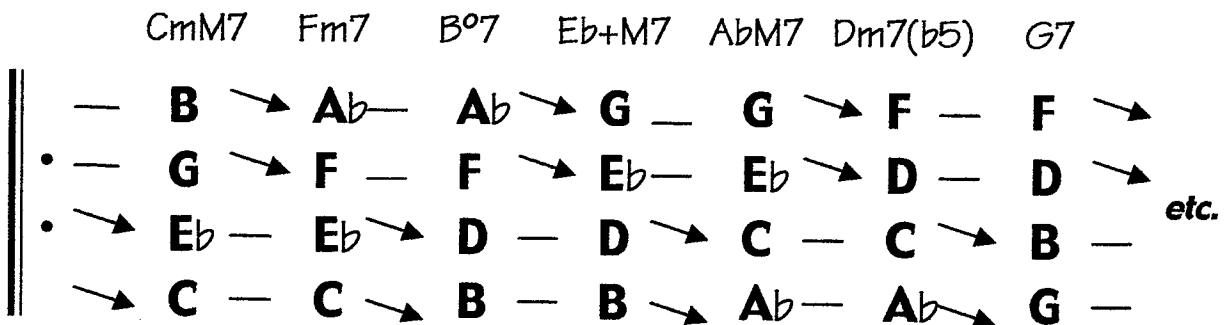
JOE'S 2 PLUS 2 THING

Fellow guitarist Joe Diorio received the first advance copy of Volume I and has been working with it longer than anyone. He explained to me a very nice way of exploring some of the 4-part chord material. I call it "Joe's 2 Plus 2 Thing."

Basically, you try to divide the 4-part chord into two 2-note groupings. The two 2-note groupings alternate in a sort of call-and-response (or question-answer) fashion. Check out the following example:



And here's another example:



Thanks, Joe!

A SMALL IDEA WITH LARGE IMPLICATIONS

Anytime one of the voices moves a distance of a 3rd, you can fill in that interval with a melodic passing tone. This works well for individual melodies, counterpoint (2 voices), 3-part and 4-part chords. Some selected examples follow:

||: → E → D → B → A → G → E → D →
 : → G → F → E → C → B → A → F →
 → C → A → G → F → D → C → B →

→ C → A → G → F → D → C → B →
 → E → D → B → A → G → E → D →
 → G → F → E → C → B → A → F →

→ G → F → E → C → B → A → F → :||
 → C → A → G → F → D → C → B → :
 → E → D → B → A → G → E → D →

||: → E → D → C → B → A → G → F → E → D →
 : → G → F → E → D → C → B → A → G → F →
 → C → B → A → G → F → E → D → C → B → A →

→ C → B → A → G → F → E → D → C → B → A →
 → E → D → C → B → A → G → F → E → D →
 → G → F → E → D → C → B → A → G → F →

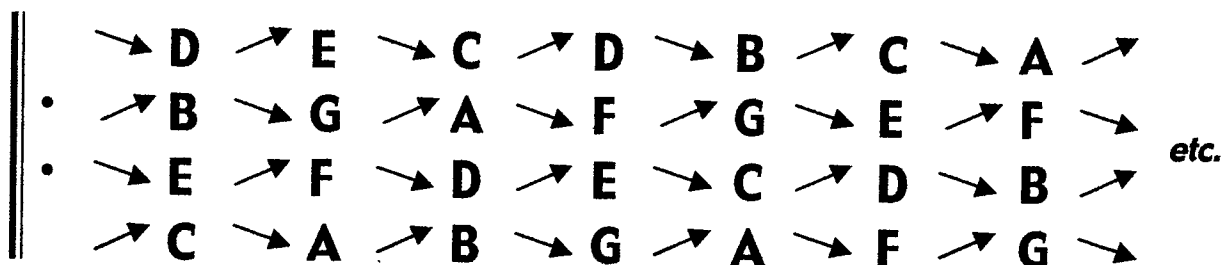
→ G → F → E → D → C → B → A → G → F → :||
 → C → B → A → G → F → E → D → C → B → A → :
 → E → D → C → B → A → G → F → E → D →

A SMALL IDEA WITH LARGE IMPLICATIONS (CONTINUED)

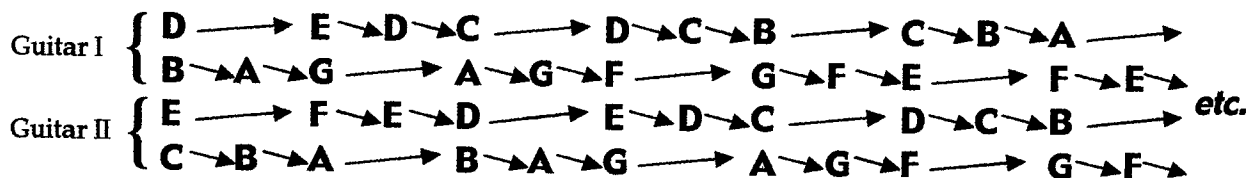
This next example shows a somewhat rare happening: two voices move in 3rds...

VERSION A makes a nice guitar duo.

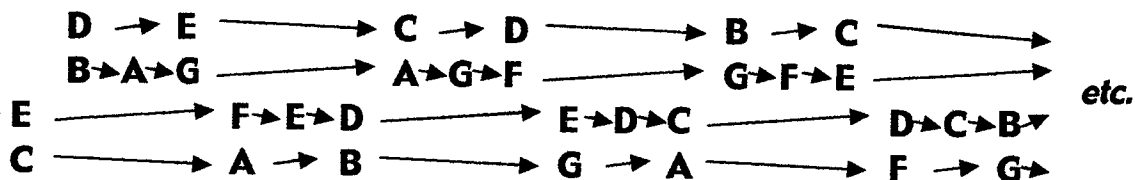
VERSION B shows a Joe's 2 Plus 2 Thing.



VERSION A



VERSION B



A SMALL IDEA WITH LARGE IMPLICATIONS (CONTINUED)

And two more examples of the "Joe's 2 Plus 2 Thing" with passing tones between thirds:

<u>G</u>	<u>A^o</u>	<u>B^o</u>	<u>Cm</u>	<u>Dm</u>	<u>Eb+</u>	<u>F</u>	
C	D	Eb	F	G	A	B	
→ D	— D	— D	→ C	→ A	— A	— A	→
• — B	→ A	→ F	— F	— F	→ Eb	→ C	—
• → G	→ Eb	— Eb	— Eb	→ D	→ B	— B	—
— C	— C	→ B	→ G	— G	— G	→ F	→

etc.

→ D	— D	— D	→ C	→ B	→ A	— A	— A	→
— B	→ A	→ G	→ F	— F	— F	→ Eb	→ D	→ C
→ G	→ F	→ Eb	— Eb	— Eb	→ D	→ C	→ B	— B
— C	— C	→ B	→ A	→ G	— G	— G	→ F	→ Eb

etc.

<u>B^o</u>	<u>Cm</u>	<u>D^o</u>	<u>Eb+</u>	<u>Fm</u>	<u>G</u>	<u>Ab</u>	<u>B</u>
C	D	Eb	F	G	Ab	B	
→ D	— D	— D	→ B	→ Ab	— Ab	— Ab	→
• — B	→ G	→ F	— F	— F	→ D	→ C	—
• → F	→ Eb	— Eb	— Eb	→ C	→ B	— B	—
— C	— C	→ Ab	→ G	— G	— G	→ Eb	→

etc.

→ D	— D	→ C	→ B	→ Ab	— Ab	— Ab	→ G	→
— B	→ Ab	→ G	→ F	— F	— F	→ Eb	→ D	→ C
→ F	→ Eb	— Eb	— Eb	→ D	→ C	→ B	— B	—
— C	→ B	→ Ab	→ G	— G	— G	→ F	→ Eb	→

etc.

OTHER 3-PART CHORDS

So far, within the fabric of the M-Lode, we have identified and used two 3-part chord families: Triads and 3-part 4th voicings. [If you remember, we described these as “supplements” for the 4-part chords.]

There are, in fact, 3 other members of the 3-part chord families. They would be the following: 3-part Spread Clusters, 7th Chord [no 5th] and 7th Chord [no 3rd]. These 3-part chords have not been IDENTIFIED as such, but they are there, within the M-Lode...(which is to say that they have been FOUND). All of them can be discovered by exploring the 3-part options of the 4-part chords. [If you remember, it just amounts to leaving out one of the voices...] There are 4 possible configurations. [as has been mentioned earlier...]

These possibilities turn out to be some of the most “guitar-friendly” options for us guitarists. Almost all of them are much easier to play, from a guitarists’ perspective. And they still have that compelling “MUSIC-REPLICA” sound and effect, which is the result of the consistent [and, I believe, excellent] voice-leading. These 3-part voicings have not been NAMED because that’s the NAME of Volume 2: DO NOT NAME THAT CHORD.

Trust me, in Volume 3, we’ll take a stab at giving them some names....

MORE ABOUT ARPEGGIOS...

[For those who can’t play chords—or choose not to...]

I would suggest that you immediately look at all of the 4-way close options within the M-Lode. This is the easiest area to explore that gives the best initial [and playable] results.

And I would further encourage you to experiment with those options using the C Harmonic Minor Scale material. [Let’s face it; much of the time, IT JUST SOUNDS BETTER IN HARMONIC MINOR...]

I believe that you will find that these options often sound as if they were written by Bach. [or at least resemble some of his music] {thus the term, MUSIC REPLICA...}

Keep in mind the following : Any [and ALL] 4-part voicings can be arpeggiated in 24 different sequences...[simple fact, but HUGE implications]

You could start out with arpeggiating up one chord and then down the next. [Or the other way around...it all depends...you will have to experiment.]

But as your skills increase, you could try a lot of other things as well. I’ll leave it at that..

MORE ABOUT ARPEGGIOS...(continued)

But I will promise you that, to whatever extent you work with this stuff, your overall prowess on your instrument will increase in ways that you could never have guessed!

[Go For It!]

FGO...[for guitarists only] Since 4-way close is often very difficult on the guitar, all of the above would be an excellent FIRST PASS. [As was mentioned in the text from Volume I, all of us guitarists still should try to find as many playable voicings for 4-way close as we can...especially using open strings.]

“HOUSTON, WE HAVE A PROBLEM...”

When you begin to work with the spread cluster material in Volume II, you may notice a small problem. Cycles 2 and 7 have two different voice-leading. [One for 4-way close, and another one for the other five voicing types...] [Neither of these voice-leading is particularly pleasing from a sound perspective...]

We felt that this was necessary [especially for guitarists] because spread clusters present unique voice-leading problems that don't occur in the other 4 chord families. It involves the interval of a diatonic 5th that occurs in the movement from one inversion to the next within the same chord. For guitarists, this could lead to potential problems with voices crossing each other if we had chosen to use voice-leading that were more pleasing from a sound perspective. Consequently, we opted for voice-leading that at least presented the material in a useful and somewhat “guitar-friendlier” manner, since much of this is going to be completely new to a large percentage of the whole guitar world.

All of these spread cluster voicings are extremely interesting. [And mostly unknown, until now...] And many of them are difficult to play on the guitar, so BE VERY CAREFUL!!! [Other choices for voice-leading options will be presented in Volume 3.]

WHAT ABOUT VOICE-LEADING?

I'm sorry about that. I haven't even mentioned anything about voice-leading. [I've USED it, for sure...] All of the M-Lode is based on voice-leading. But to me, at this point in time and in music history, voice-leading is not the most important thing. {At least not right now...we'll get to voice-leading in Volume 3.}

For me, as the author, [perhaps I should describe myself as the discoverer...] the most important thing is this :

For the first time in the history of music on our planet, all of the 3-part and 4-part voicings that exist within the Major Scale, the Melodic Minor Scale and the Harmonic Minor Scale have been found.

WHAT ABOUT VOICE-LEADING? (continued)

And by the time that Volume 3 is completed, published and disseminated, ALL of that material will be not only found, but IDENTIFIED.

This is huge, in that musicians all around our planet will get the opportunity to work with "the full deck, for the very first time..." !!

SOME NUMBERS WITH THE M-LODE...

- Number of different 3-part chords found: 20
 - Number of different voicings for these chords found: 240
 - Number of different 4-part chords found: 30+
 - Number of different voicings for these chords found: 800+
 - Total of different 3-part and 4-part voicings found: 1000+
 - Number of melodic movements involving a 3rd found: 276
- Red, Yellow and Blue..... [Who Knew???

I didn't make up all of this.....
I just discovered it.....{found it...}

All of this has been WAITING TO BE DISCOVERED!!
[perhaps, for thousands of years.....]

Frankly, I'm surprised that this Discovery hasn't happened sooner!
[Don't doubt the power of voice-leading or Cycles ever again...]

And it's ALL YOURS!!!

—Mick Goodrick 2002

3-PART 4THS
CLOSE & SPREAD
ALL CYCLES
C MAJOR

Chord Family: 3-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Close

Intervallic

Voice-Leading

5 → 3rd

2 — c.t.

1 → 3rd

Functional

Voice-Leading

5 → 2

2 — 1

1 → 5

down 1 c.t.
5 down 2

•	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
•	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→
	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—
	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→
	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→

Voicing Type: Spread

•	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—
•	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—
	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→
	→	G	→	E	—	E	→	C	→	A	—	A	→	F	→
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
	→	D	—	D	→	B	→	G	—	G	→	E	→	C	—

M.S.R.P. CAFF

||:CAFFDBBGGEECAAFDDBBGGEC:||

1

5

2

Chord Family: 3-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Close to Spread
[Alternate]

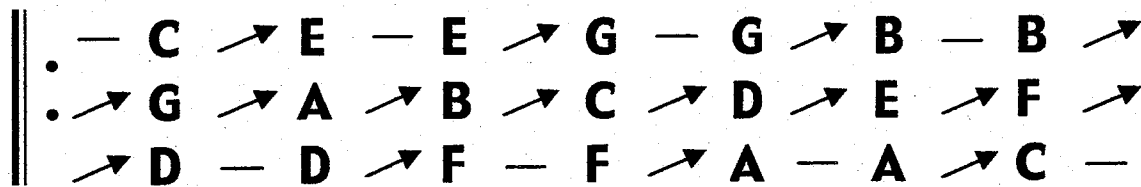
Intervallic

Voice-Leading

5 → 2nd

2 — c.t.

1 → 3rd



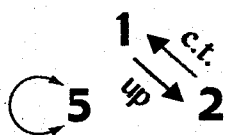
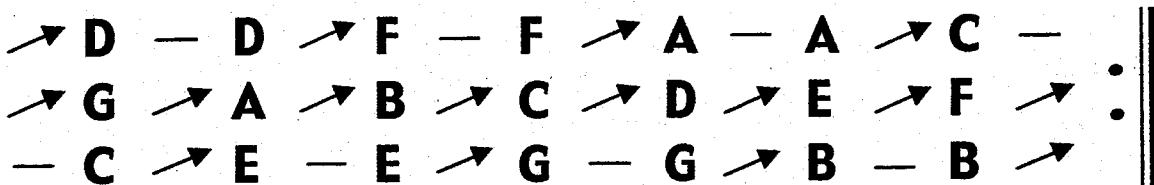
Functional

Voice-Leading

5 → 5

2 — 1

1 → 2



M.S.R.P. 1) $\overline{CE} E$ 2) G A B C D E F

1) ||: C E E G G B B D D F F A A C :|| 2) ||: G A B C D E F :||

↓
1

↓
2

↓
5

Chord Family: 3-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Close

**Intervallic
Voice-Leading**

5 — c.t.

2 ↗ 3rd

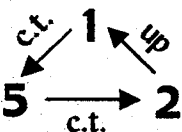
1 — c.t.

**Functional
Voice-Leading**

5 — 2

2 ↗ 1

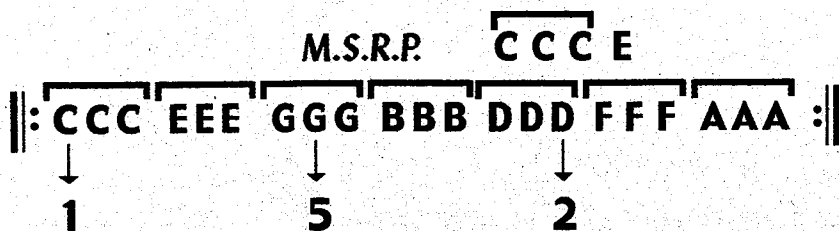
1 — 5



•	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
•	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— D	↗ F	— F	— F	↗ A	— A	— A	↗
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— D	↗ F	— F	— F	↗ A	— A	— A	↗
	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
	— D	↗ F	— F	— F	↗ A	— A	— A	↗
	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
	— G	— G	↗ B	— B	— B	↗ D	— D	—

Voicing Type: Spread

•	— D	↗ F	— F	— F	↗ A	— A	— A	↗
•	— G	— G	↗ B	— B	— B	↗ D	— D	—
	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
	— D	↗ F	— F	— F	↗ A	— A	— A	↗
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	↗ C	— C	— C	↗ E	— E	— E	↗ G	—
	— D	↗ F	— F	— F	↗ A	— A	— A	↗



Chord Family: 3-part 4ths

Cycle: 4

Scale: C major

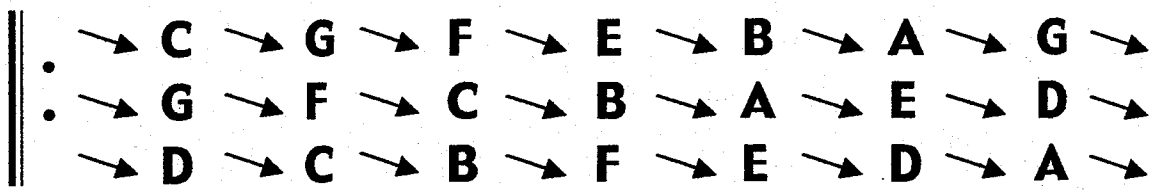
Voicing Type: Close [Alternate]

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 4th

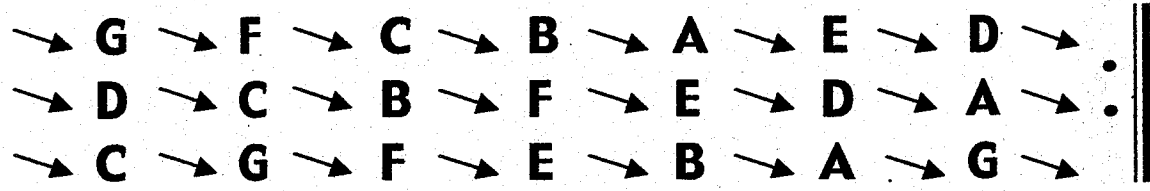
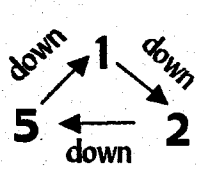
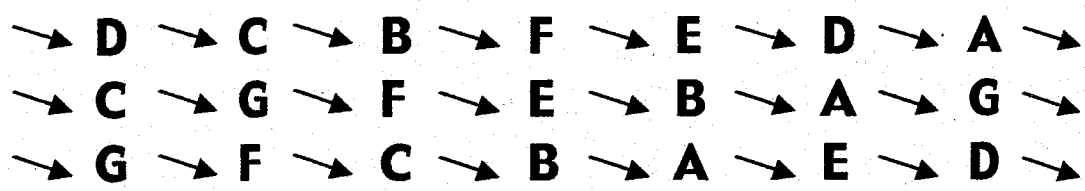


**Functional
Voice-Leading**

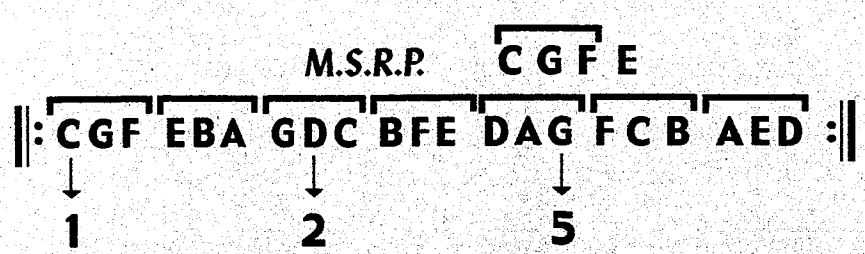
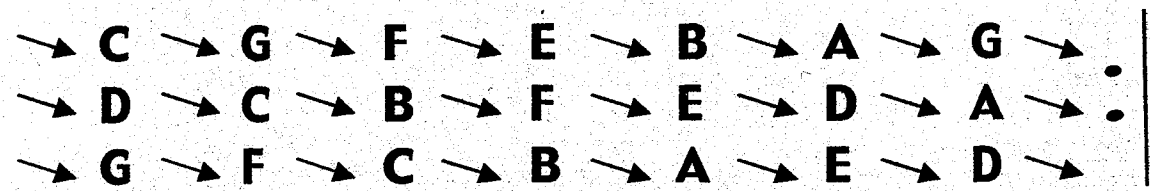
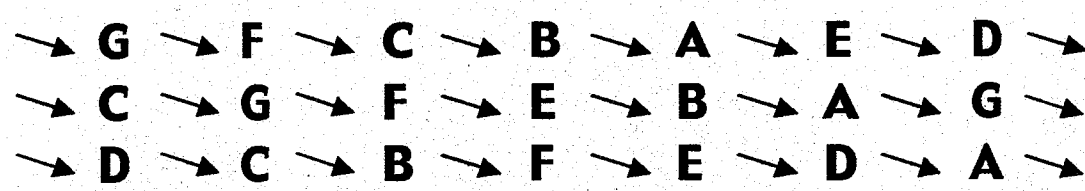
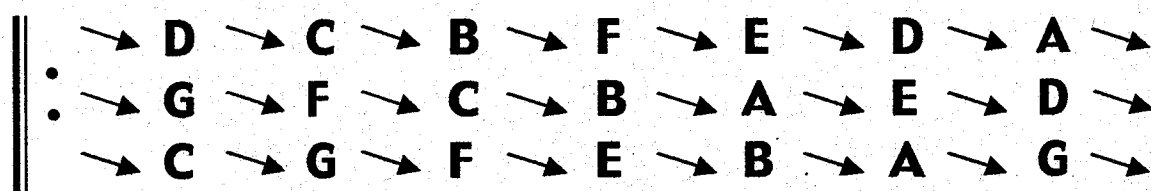
5 → 1

2 → 5

1 → 2



Voicing Type: Spread [Alternate]



Chord Family: 3-part 4ths

Cycle: 6

Scale: C major

Voicing Type: Close

Intervallic

Voice-Leading

5 → 2nd

2 → 2nd

1 → 2nd

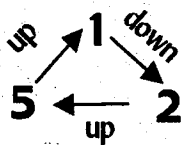
Functional

Voice-Leading

5 → 1

2 → 5

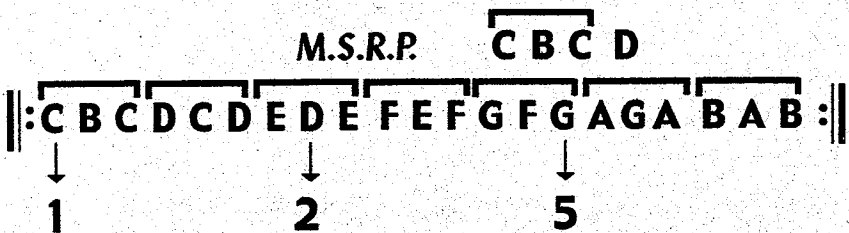
1 → 2



→	C	→	B	→	C	→	D	→	C	→	D	→	E	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→
→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	C	→	B	→	C	→	D	→	C	→	D	→	E	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→
→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	C	→	B	→	C	→	D	→	C	→	D	→	E	→

Voicing Type: Spread

→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→
→	C	→	B	→	C	→	D	→	C	→	D	→	E	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→
→	C	→	B	→	C	→	D	→	C	→	D	→	E	→
→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	C	→	B	→	C	→	D	→	C	→	D	→	E	→
→	D	→	E	→	F	→	E	→	F	→	G	→	F	→
→	G	→	A	→	G	→	A	→	B	→	A	→	B	→



Chord Family: 3-part 4ths

Cycle: 7

Scale: C major

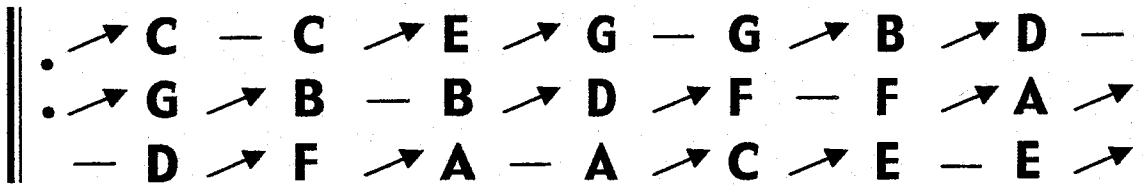
Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 3rd

2 → 3rd

1 — c.t.

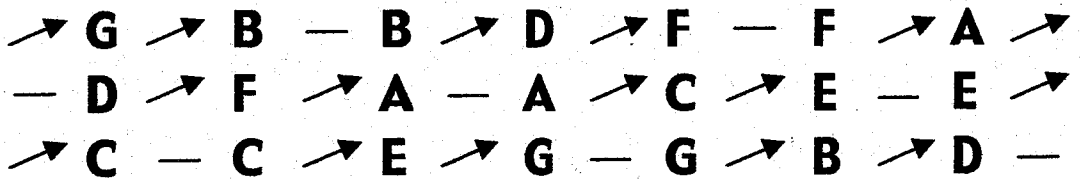
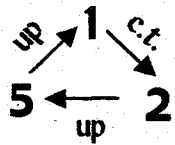
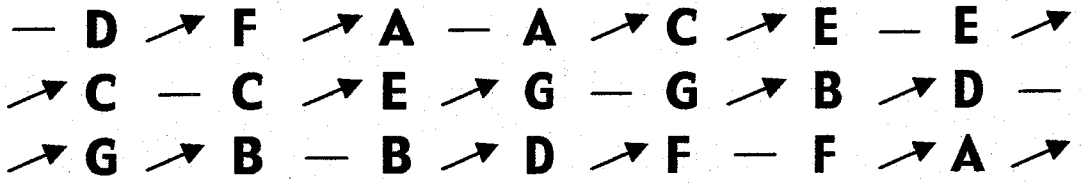


**Functional
Voice-Leading**

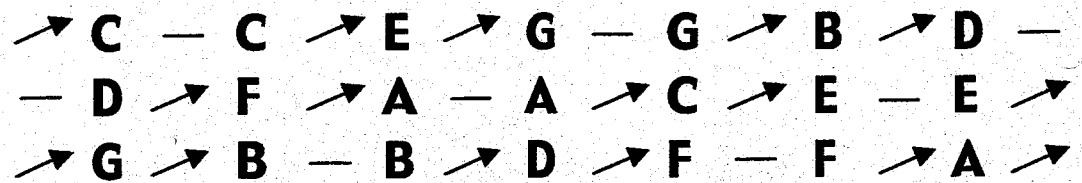
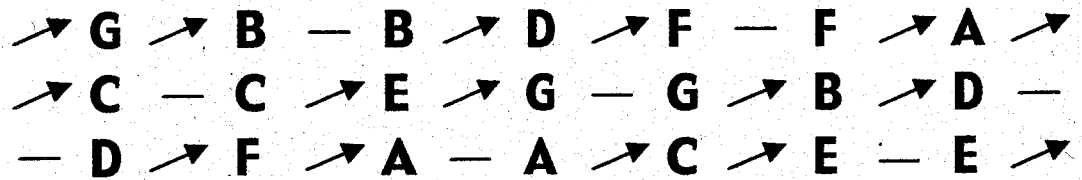
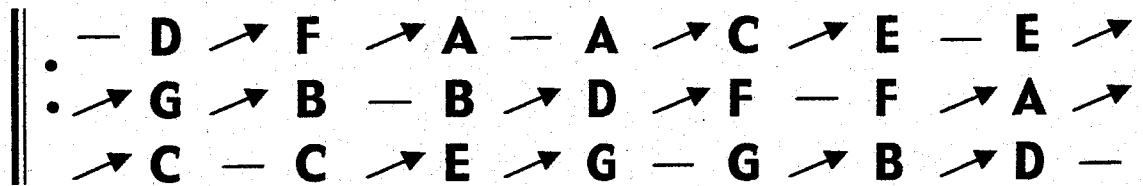
5 → 1

2 → 5

1 — 2



Voicing Type: Spread



M.S.R.P. CCE G



Chord Family: 3-part 4ths

Cycle: 7

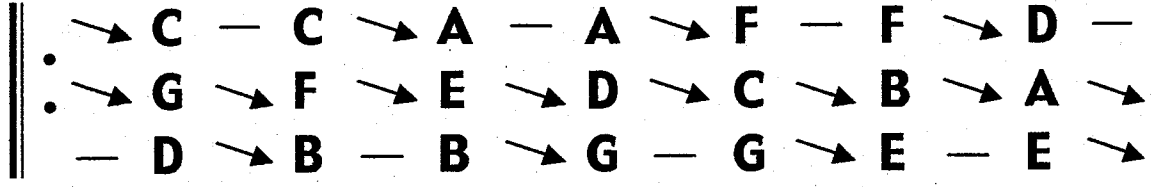
Scale: C major

Voicing Type: Close to Spread
[Alternate]

Intervallic

Voice-Leading

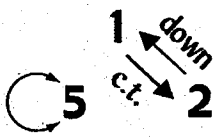
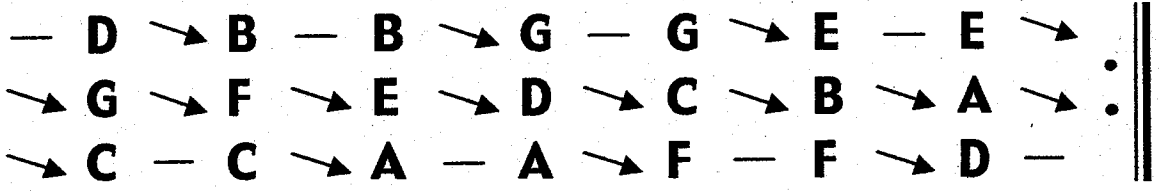
5 → 2nd
2 → 3rd
1 — c.t.



Functional

Voice-Leading

5 → 5
2 → 1
1 — 2



M.S.R.P. 1) $\overline{CC}A$ 2) GFEDCBA

1) ||: C C A A F F D D B B G G E E :|| 2) ||: G F E D C B A :||



Chord Family: 3-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Close

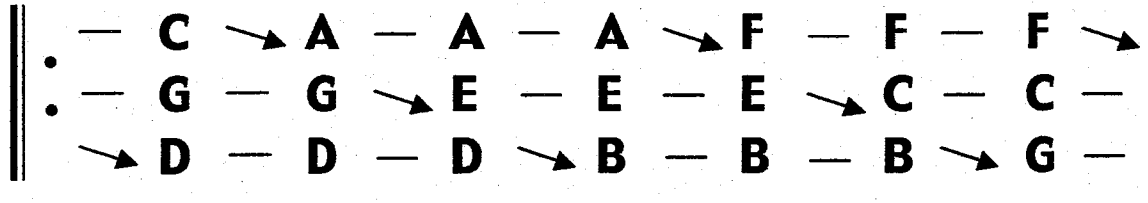
Intervallic

Voice-Leading

5 — c.t.

2 — c.t.

1 → 3rd



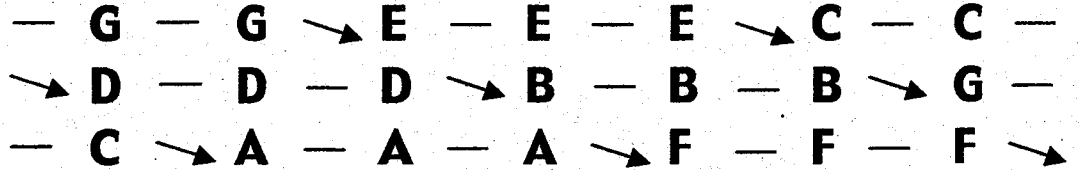
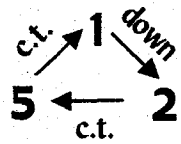
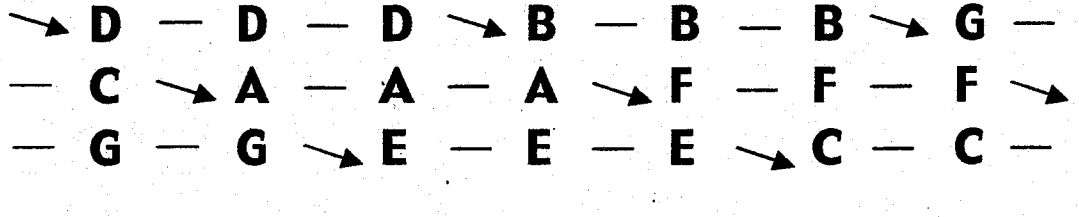
Functional

Voice-Leading

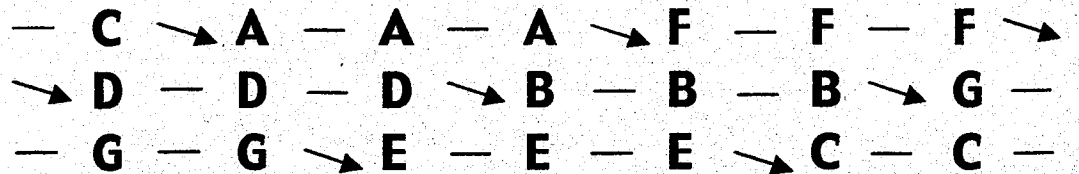
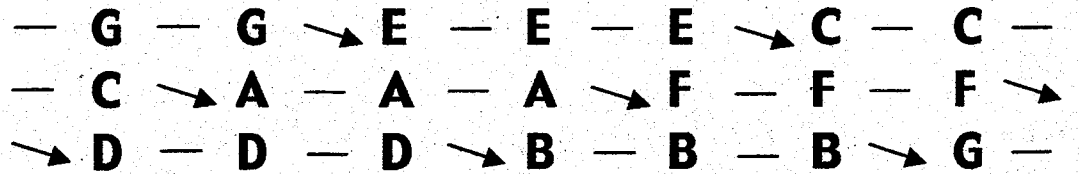
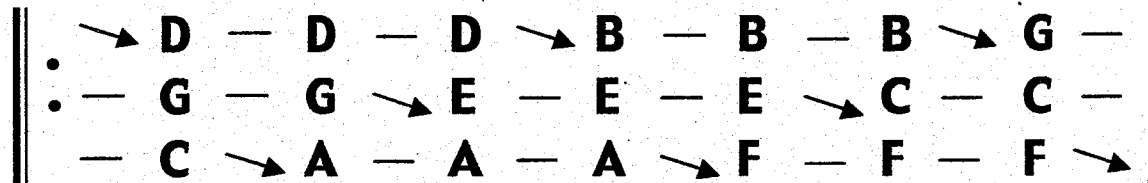
5 — 1

2 — 5

1 → 2



Voicing Type: Spread



M.S.R.P.

CAA A



1

2

5

Chord Family: 3-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Close [Alternate]

Intervallic

Voice-Leading

5 → 2nd

2 → 4th

1 → 2nd

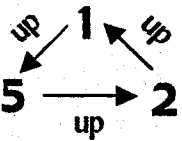
Functional

Voice-Leading

5 → 2

2 → 1

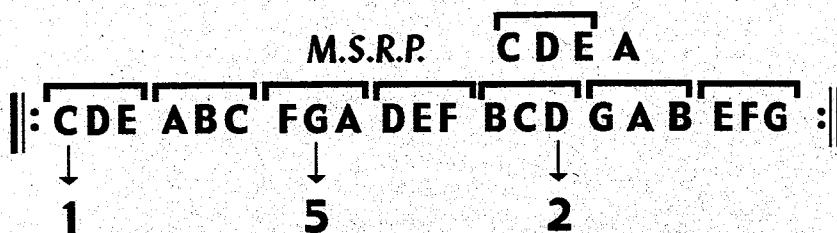
1 → 5



•	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
•	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→
	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→
	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→
	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→
	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→
	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→

Voicing Type: Spread [Alternate]

•	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→
•	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→
	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→
	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→
	→ G	→ A	→ D	→ E	→ F	→ B	→ C	→
	→ C	→ D	→ E	→ A	→ B	→ C	→ F	→
	→ D	→ G	→ A	→ B	→ E	→ F	→ G	→



Chord Family: 3-part 4ths

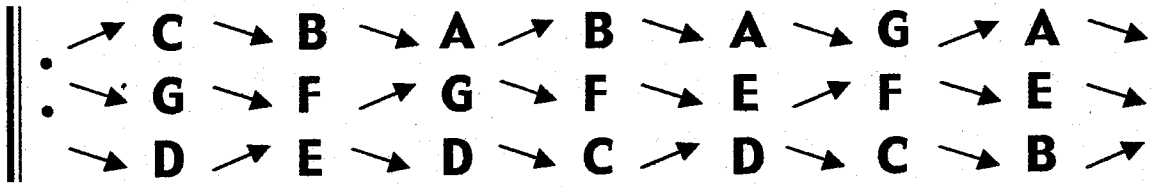
Cycle: 3

Scale: C major

Voicing Type: Close

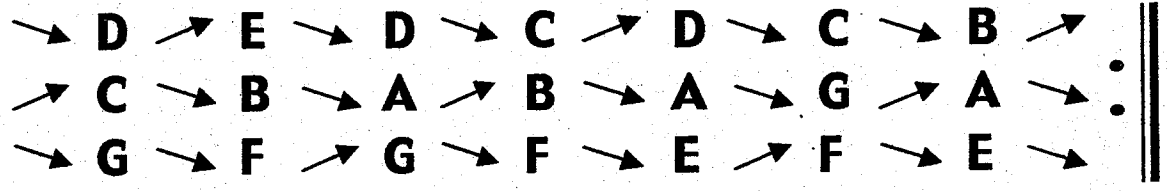
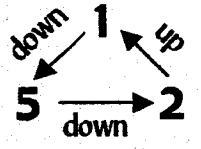
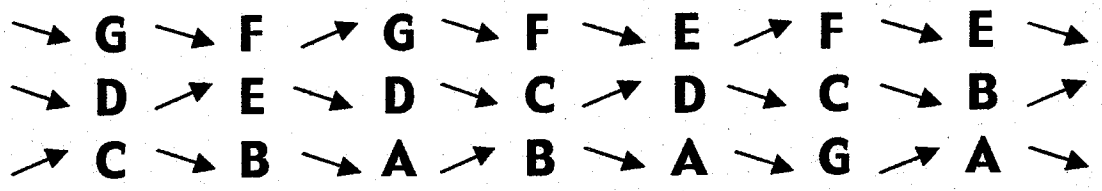
Intervallic Voice-Leading

- 5 → 2nd
- 2 → 2nd
- 1 → 2nd

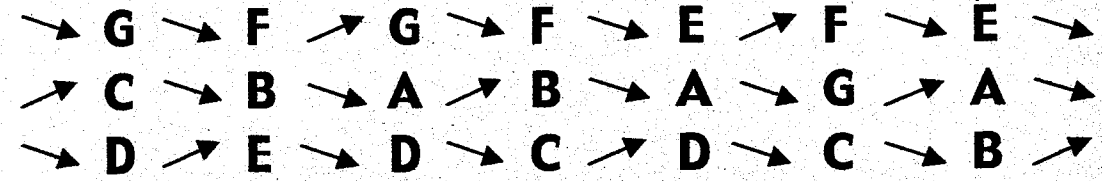
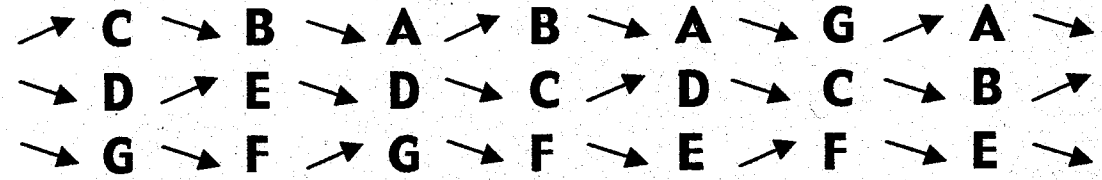
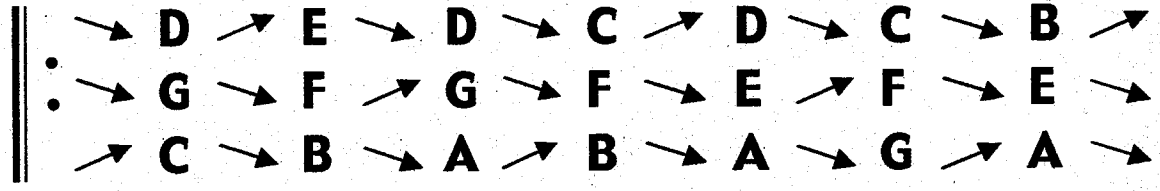


Functional Voice-Leading

- 5 → 2
- 2 → 1
- 1 → 5



Voicing Type: Spread



M.S.R.P. CBAB

||:CBABAGAGFGFEFEDEDCDCB:||

1 5 2

3-PART 4THS
CLOSE & SPREAD
ALL CYCLES
C MELODIC MINOR

Chord Family: 3-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 3rd

2 — c.t.

1 → 3rd

•	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
•	→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→
	→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—

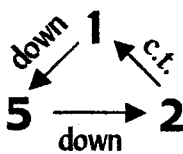
**Functional
Voice-Leading**

5 → 2

2 — 1

1 → 5

→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→
→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—
—	C	→	A	→	F	—	F	→	D	→	B	—	B	→



→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—
—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→

Voicing Type: Spread

•	→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—
•	→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→
	—	C	→	A	→	F	—	F	→	D	→	B	—	B	→

—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—
→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→

→	G	→	E _b	—	E _b	→	C	→	A	—	A	→	F	→
—	C	→	A	→	F	—	F	→	D	→	B	—	B	→
→	D	—	D	→	B	→	G	—	G	→	E _b	→	C	—

M.S.R.P. CAFF

	•	C	A	F	F	D	B	B	G	E _b	E _b	C	A	A	F	D	D	B	G	G	E _b	C		
		↓								↓						↓								
		1								5						2								

Chord Family: 3-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Close to Spread
[Alternate]

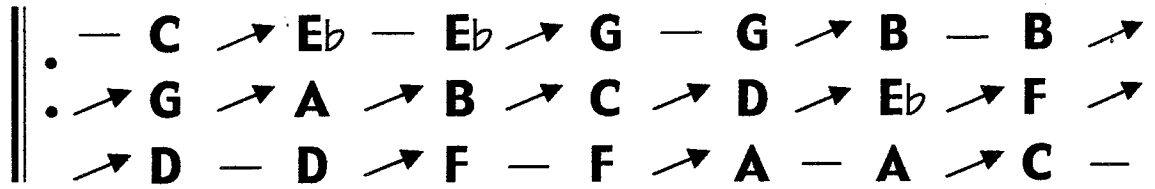
Intervallic

Voice-Leading

5 → 2nd

2 — c.t.

1 → 3rd



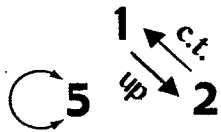
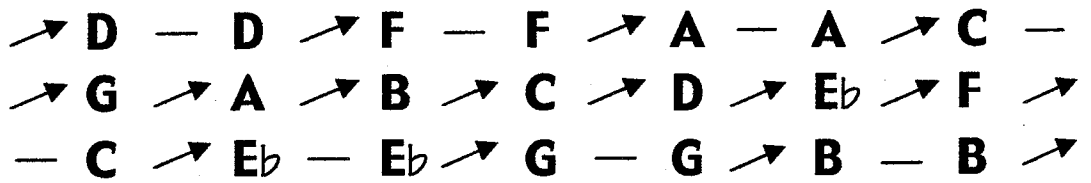
Functional

Voice-Leading

5 → 5

2 — 1

1 → 2



M.S.R.P. 1) $\overline{C E_b} E_b$ 2) G A B C D E_b F



Chord Family: 3-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: Close

**Intervallic
Voice-Leading**

5 — c.t.

2 ↗ 3rd

1 — c.t.

**Functional
Voice-Leading**

5 — 2

2 ↗ 1

1 — 5

c.t. ↙ 1 ↘ up
5 → 2
c.t.

||: ↗ C — C — C ↗ E_b — E_b — E_b ↗ G —
 • — G — G ↗ B — B — B ↗ D — D —
 • — D ↗ F — F — F ↗ A — A — A ↗

— G — G ↗ B — B — B ↗ D — D —
 — D ↗ F — F — F ↗ A — A — A ↗
 ↗ C — C — C ↗ E_b — E_b — E_b ↗ G —

— D ↗ F — F — F ↗ A — A — A ↗ :||
 ↗ C — C — C ↗ E_b — E_b — E_b ↗ G —
 — G — G ↗ B — B — B ↗ D — D —

Voicing Type: Spread

||: — D ↗ F — F — F ↗ A — A — A ↗
 • — G — G ↗ B — B — B ↗ D — D —
 • ↗ C — C — C ↗ E_b — E_b — E_b ↗ G —

↗ C — C — C ↗ E_b — E_b — E_b ↗ G —
 — D ↗ F — F — F ↗ A — A — A ↗
 — G — G ↗ B — B — B ↗ D — D —

— G — G ↗ B — B — B ↗ D — D — :||
 ↗ C — C — C ↗ E_b — E_b — E_b ↗ G —
 — D ↗ F — F — F ↗ A — A — A ↗

M.S.R.P. C C C E_b

||: CCC E_bE_bE_b GGG BBB DDD FFF AAA :||

↓ 1 ↓ 5 ↓ 2

Chord Family: 3-part 4ths

Cycle: 4

Scale: C melodic minor

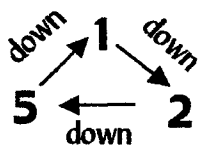
Voicing Type: Close [Alternate]

**Intervallic
Voice-Leading**
5 → 2nd
2 → 2nd
1 → 4th

→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→
→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→

**Functional
Voice-Leading**
5 → 1
2 → 5
1 → 2

→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→
→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→
→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→



→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→
→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→

Voicing Type: Spread [Alternate]

→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→
→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→
→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→

→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→
→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→

→	C	→	G	→	F	→	E _b	→	B	→	A	→	G	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A	→
→	G	→	F	→	C	→	B	→	A	→	E _b	→	D	→

M.S.R.P.

C G F E_b

	:	C	G	F	E _b	A	G	D	C	B	F	E _b	D	A	G	F	C	B	A	E _b	D	:	
		↓					↓						↓										
		1					2						5										

Chord Family: 3-part 4ths

Cycle: 6

Scale: C melodic minor

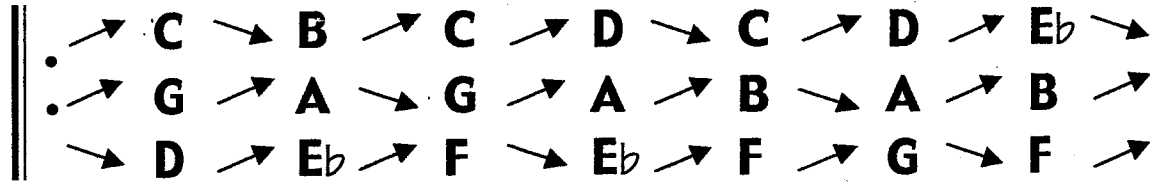
Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 2nd

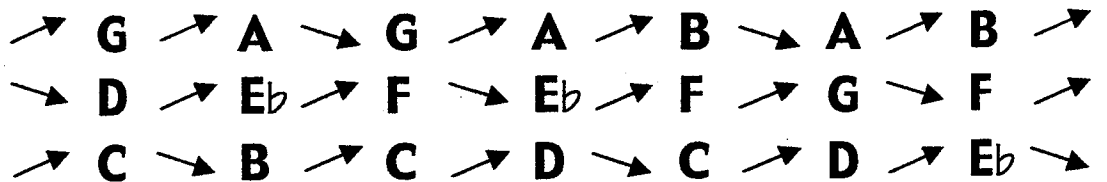
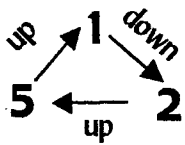
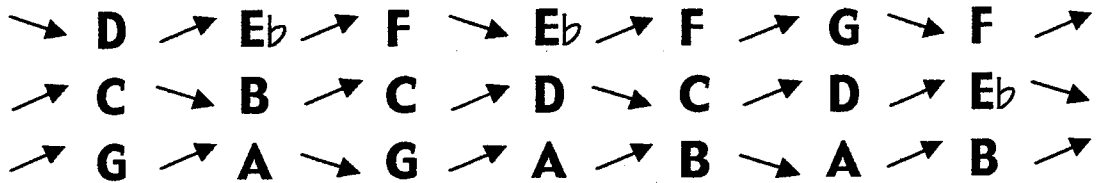


**Functional
Voice-Leading**

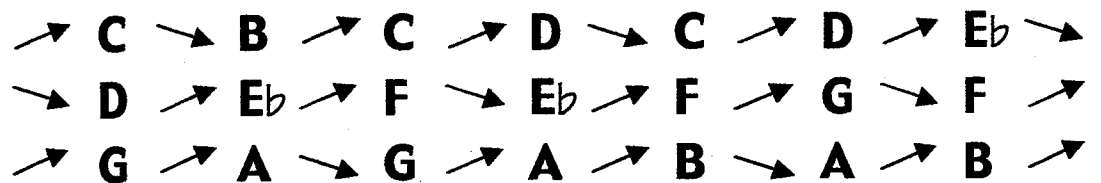
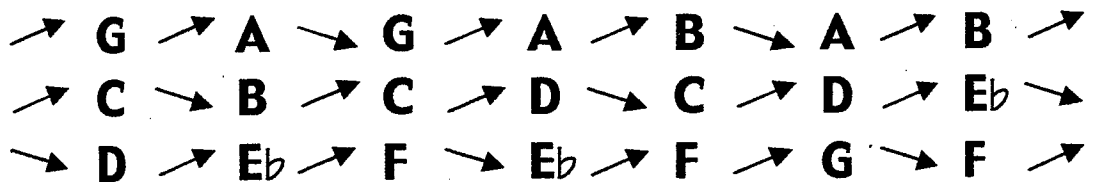
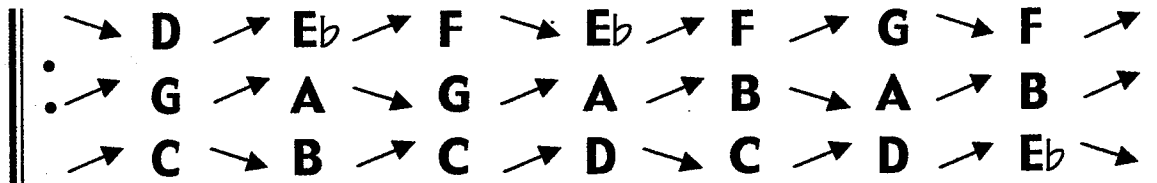
5 → 1

2 → 5

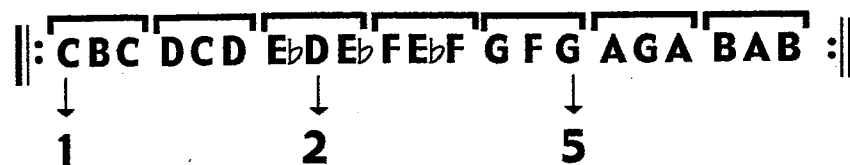
1 → 2



Voicing Type: Spread



M.S.R.P. C B C D



Chord Family: 3-part 4ths

Cycle: 7

Scale: C melodic minor

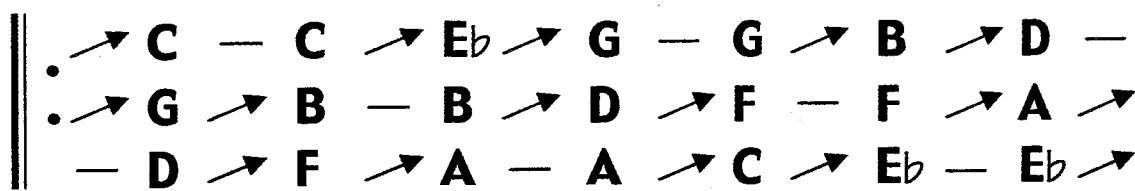
Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 3rd

2 → 3rd

1 — c.t.

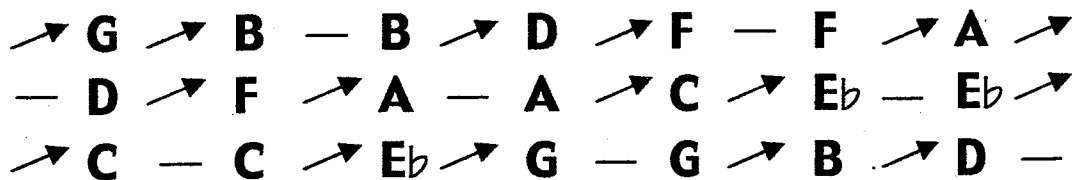
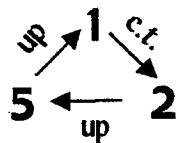
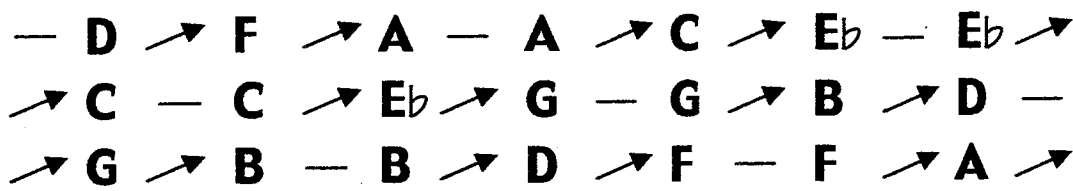


**Functional
Voice-Leading**

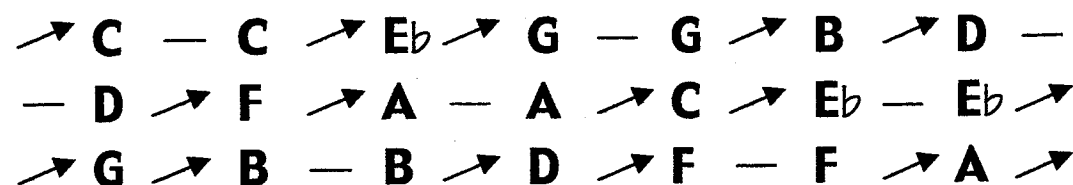
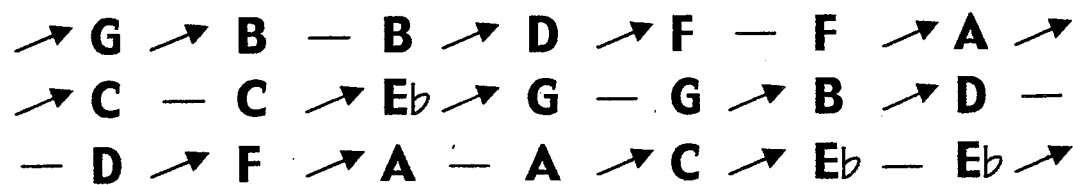
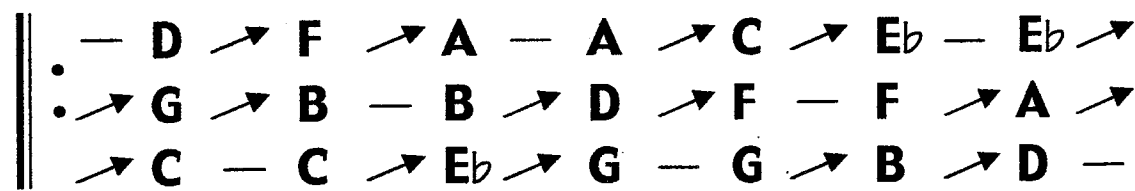
5 → 1

2 → 5

1 — 2



Voicing Type: Spread



M.S.R.P. CCE^bG



1

2

5

Chord Family: 3-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: Close to Spread
[Alternate]

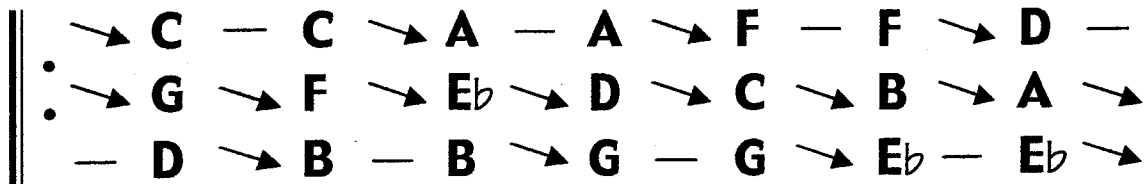
Intervallic

Voice-Leading

5 → 2nd

2 → 3rd

1 — c.t.



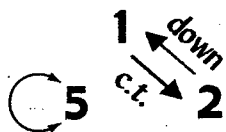
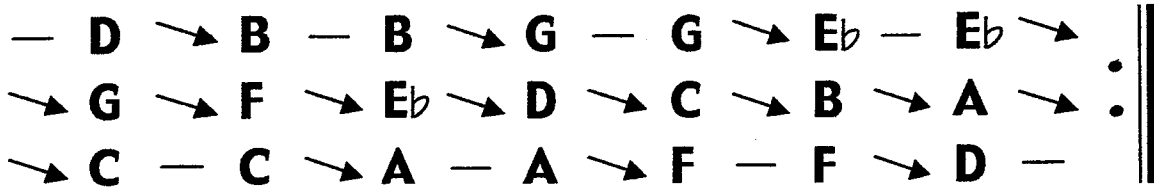
Functional

Voice-Leading

5 → 5

2 → 1

1 — 2



M.S.R.P. 1) \overline{CC} A 2) G F E_b D C B A

1) ||: C C A A F F D D B B G G E_b E_b :|| 2) ||: G F E_b D C B A :||

↓
1

↓
2

↓
5

Chord Family: 3-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: Close

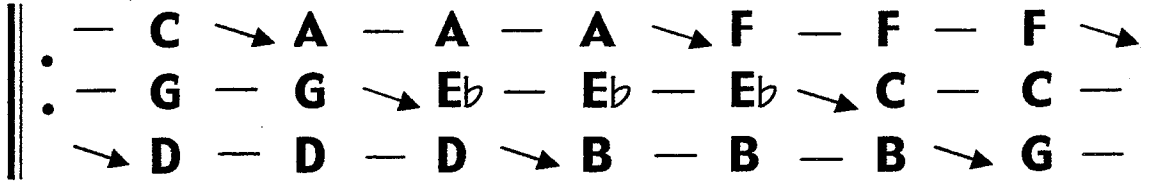
Intervallic

Voice-Leading

5 — c.t.

2 — c.t.

1 → 3rd



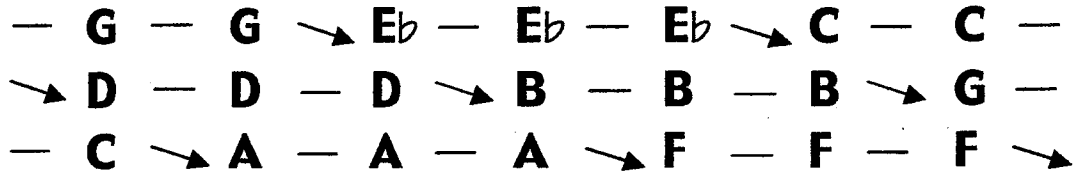
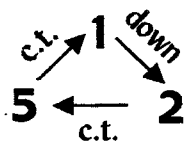
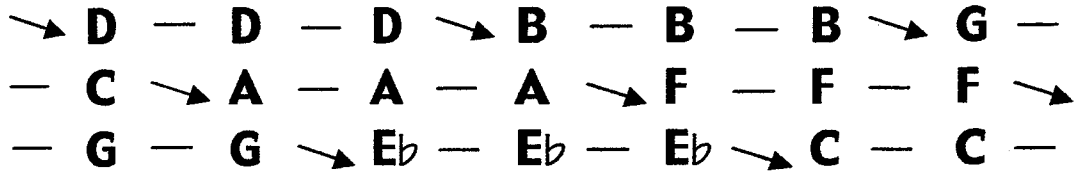
Functional

Voice-Leading

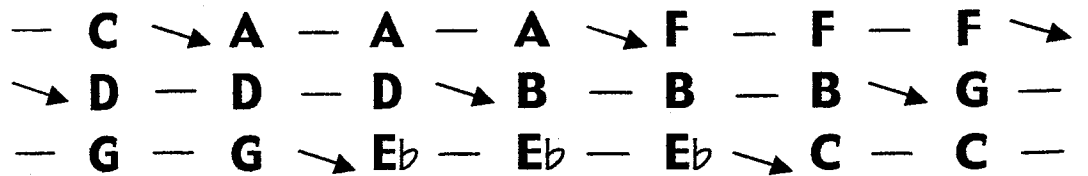
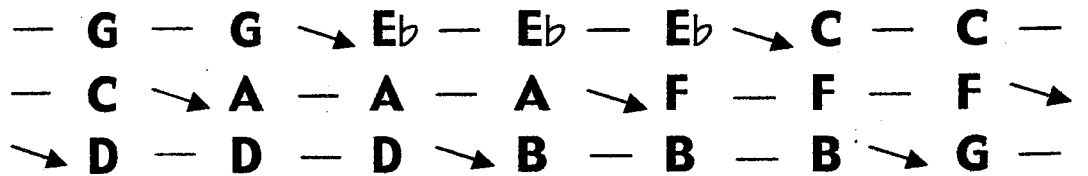
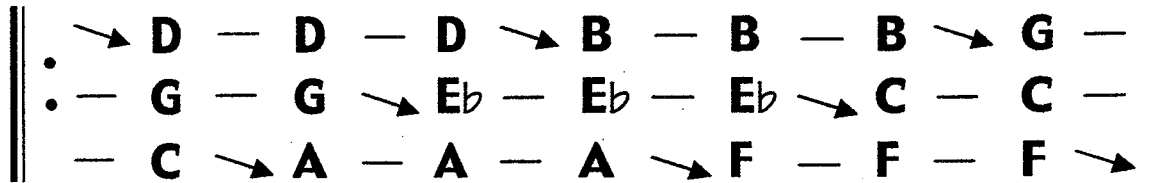
5 — 1

2 — 5

1 → 2



Voicing Type: Spread



M.S.R.P. C A A A



1

2

5

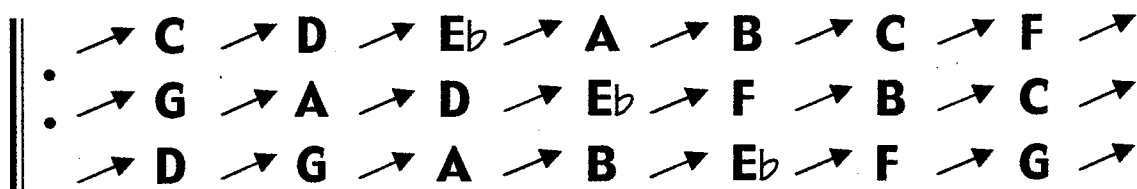
Chord Family: 3-part 4ths

Cycle: 5

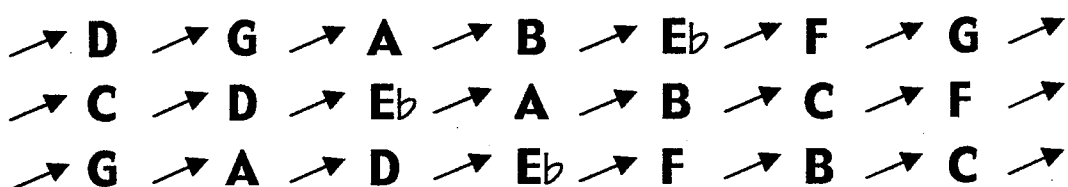
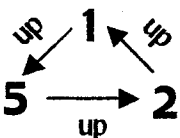
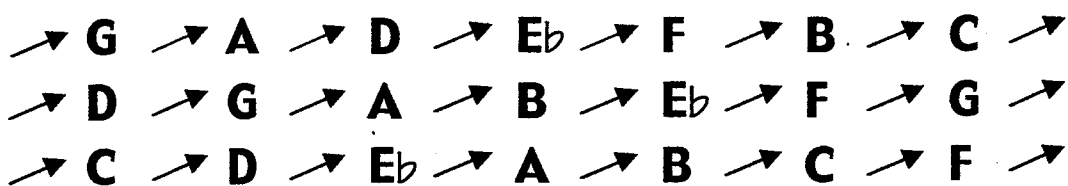
Scale: C melodic minor

Voicing Type: Close [Alternate]

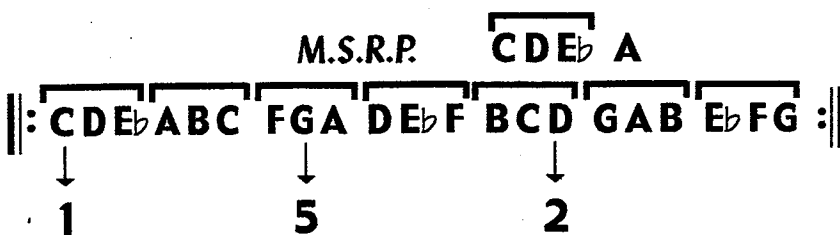
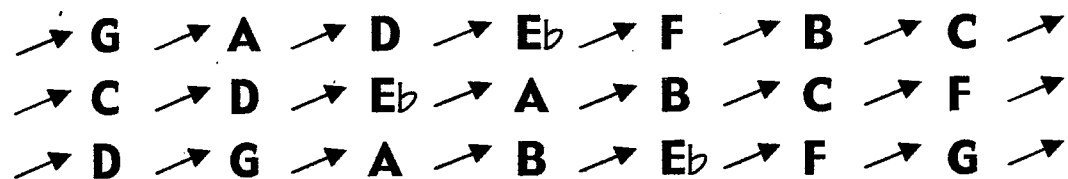
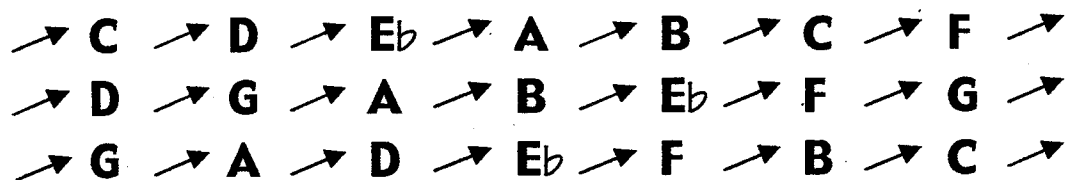
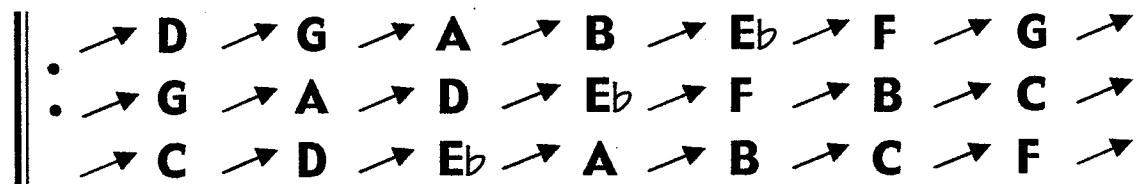
**Intervallic
Voice-Leading**
5 → 2nd
2 → 4th
1 → 2nd



**Functional
Voice-Leading**
5 → 2
2 → 1
1 → 5



Voicing Type: Spread [Alternate]



Chord Family: 3-part 4ths

Cycle: 3

Scale: C melodic minor

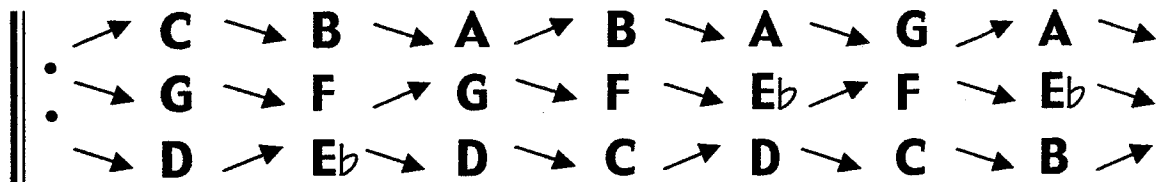
Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 2nd

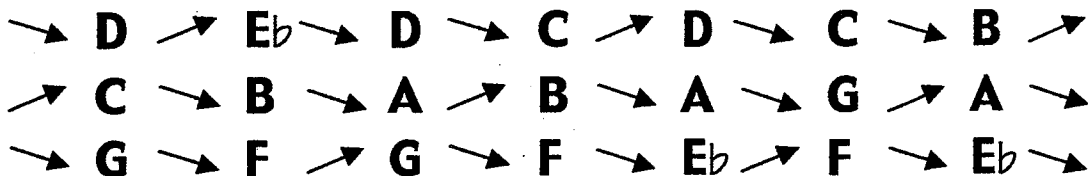
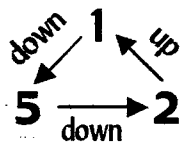
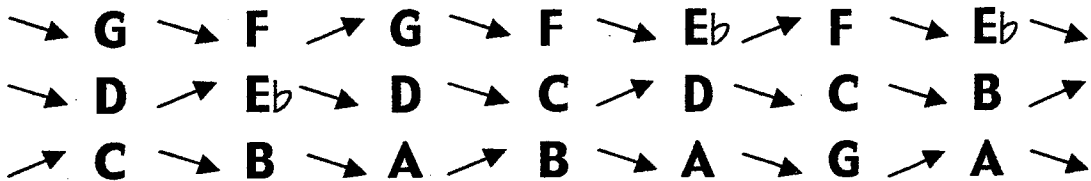


**Functional
Voice-Leading**

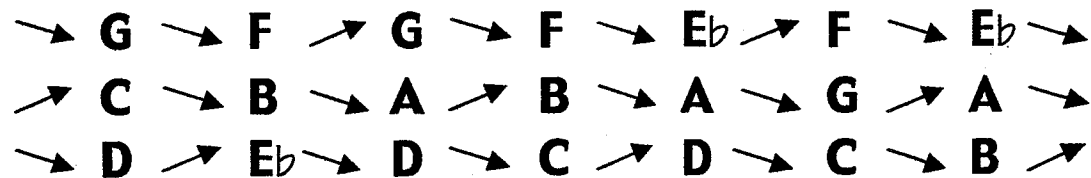
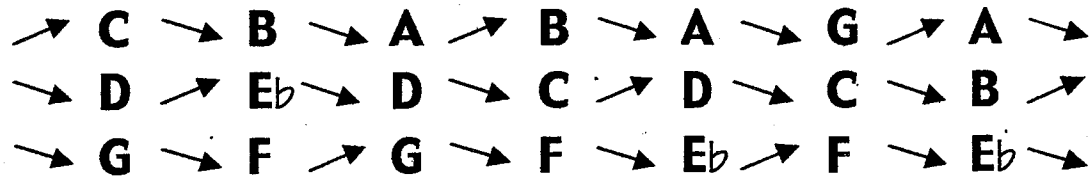
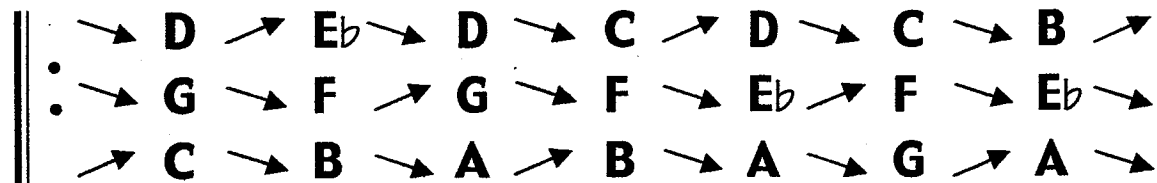
5 → 2

2 → 1

1 → 5



Voicing Type: Spread



M.S.R.P. C B A B



3-PART 4THS
CLOSE & SPREAD
ALL CYCLES
C HARMONIC MINOR

Chord Family: 3-part 4ths

Cycle: 2

Scale: C harmonic minor

Voicing Type: Close

Intervallic

Voice-Leading

5 → 3rd

2 — c.t.

1 → 3rd

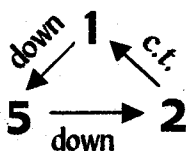
Functional

Voice-Leading

5 → 2

2 — 1

1 → 5



•	— C	→	Ab	→	F	—	F	→	D	→	B	—	B	→	
•	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→
	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—

	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→
	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—
	—	C	→	Ab	→	F	—	F	→	D	→	B	—	B	→

	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—
	—	C	→	Ab	→	F	—	F	→	D	→	B	—	B	→
	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→

Voicing Type: Spread

•	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—
•	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→
	—	C	→	Ab	→	F	—	F	→	D	→	B	—	B	→

	—	C	→	Ab	→	F	—	F	→	D	→	B	—	B	→
	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—
	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→

	→	G	→	Eb	—	Eb	→	C	→	Ab	—	Ab	→	F	→
	—	C	→	Ab	→	F	—	F	→	D	→	B	—	B	→
	→	D	—	D	→	B	→	G	—	G	→	Eb	→	C	—

M.S.R.P. CA^bFF

	•	C	A ^b	F	F	D	B	B	G	E ^b	E ^b	C	A ^b	A ^b	F	D	D	B	G	G	E ^b	C		
		↓								↓						↓								
		1								5						2								

Chord Family: 3-part 4ths

Cycle: 2

Scale: C harmonic minor

Voicing Type: Close to Spread
[Alternate]

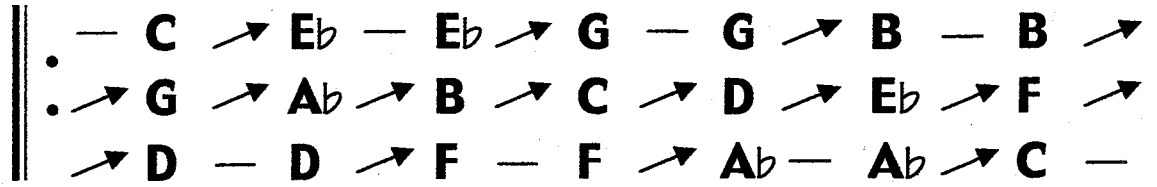
Intervallic

Voice-Leading

5 → 2nd

2 — c.t.

1 → 3rd



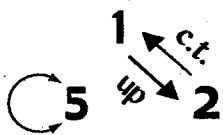
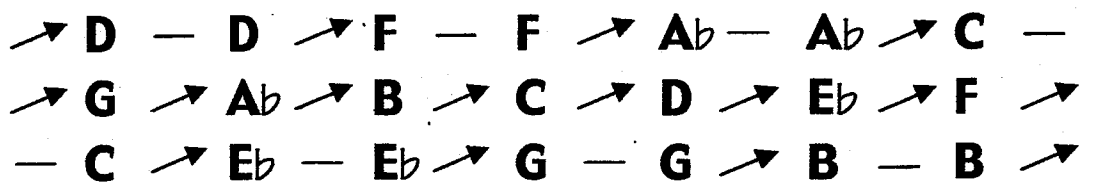
Functional

Voice-Leading

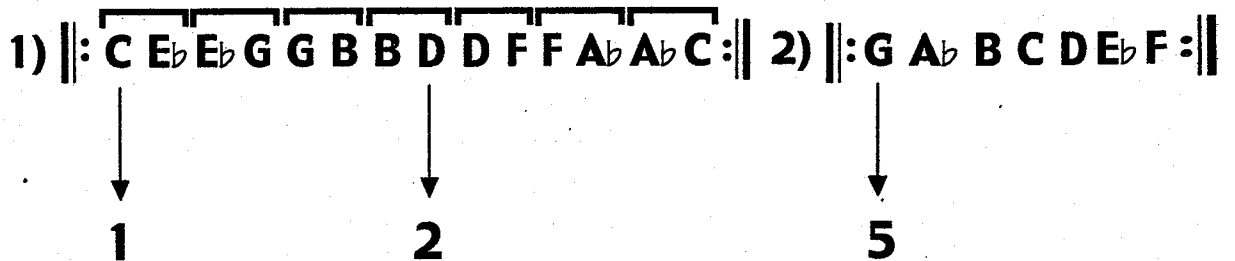
5 → 5

2 — 1

1 → 2



M.S.R.P. 1) $\overline{C E_b E_b}$ 2) $G A_b B C D E_b F$



Chord Family: 3-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Close

**Intervallic
Voice-Leading**

5 — c.t.

2 ↗ 3rd

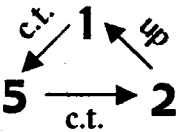
1 — c.t.

**Functional
Voice-Leading**

5 — 2

2 ↗ 1

1 — 5



•	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
•	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗
	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗
	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
	— G	— G	↗ B	— B	— B	↗ D	— D	—

Voicing Type: Spread

•	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗
•	— G	— G	↗ B	— B	— B	↗ D	— D	—
	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	— G	— G	↗ B	— B	— B	↗ D	— D	—
	↗ C	— C	— C	↗ Eb	— Eb	— Eb	↗ G	—
	— D	↗ F	— F	— F	↗ Ab	— Ab	— Ab	↗

M.S.R.P. $\overline{CCC} Eb$

||: CCC EbEbEb GGG BBB DDD FFF AbAbAb:||

↓ ↓ ↓

1 5 2

Chord Family: 3-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Close [Alternate]

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 4th

→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→
→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→

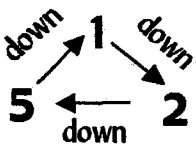
**Functional
Voice-Leading**

5 → 1

2 → 5

1 → 2

→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→
→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→
→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→



→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→
→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→

Voicing Type: Spread [Alternate]

→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→
→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→
→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→

→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→
→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→

→	C	→	G	→	F	→	E _b	→	B	→	A _b	→	G	→
→	D	→	C	→	B	→	F	→	E _b	→	D	→	A _b	→
→	G	→	F	→	C	→	B	→	A _b	→	E _b	→	D	→

M.S.R.P. C G F E_b

	→	C	G	F	E _b	A _b	G	D	C	B	F	E _b	D	A _b	G	F	C	B	A _b	E _b	D		
	↓	1						2							5								

Chord Family: 3-part 4ths

Cycle: 6

Scale: C harmonic minor

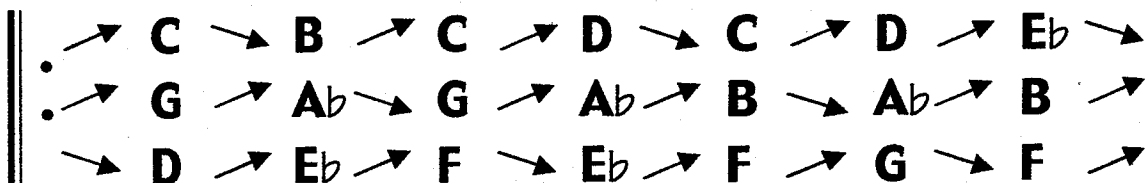
Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 2nd

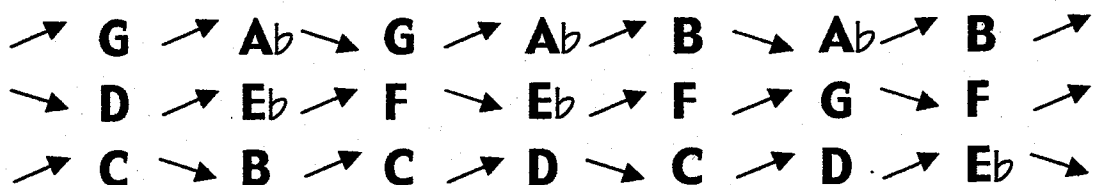
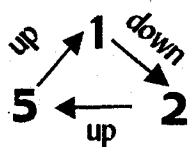
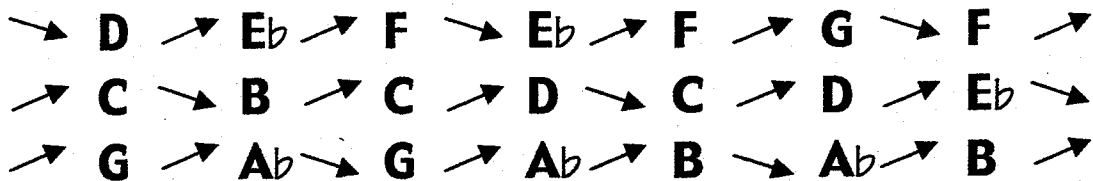


**Functional
Voice-Leading**

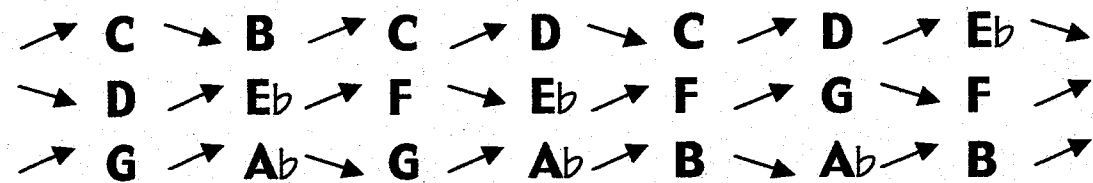
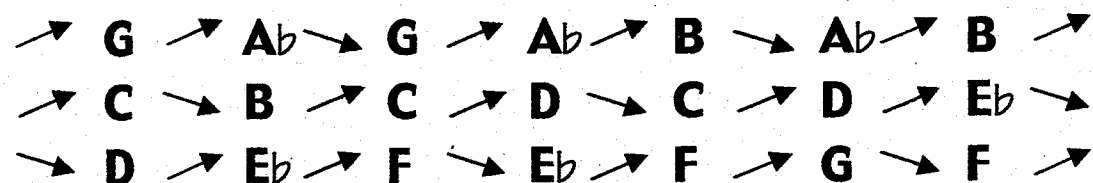
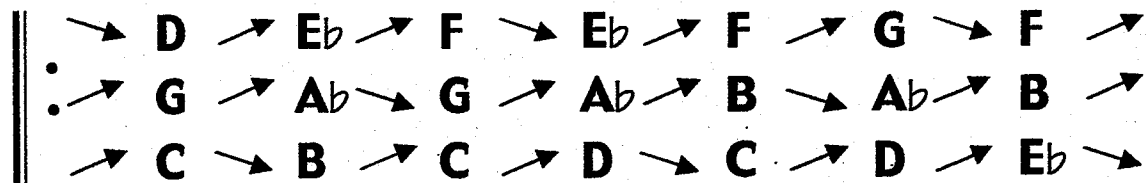
5 → 1

2 → 5

1 → 2



Voicing Type: Spread



M.S.R.P. C B C D



1

2

5

Chord Family: 3-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 3rd

2 → 3rd

1 — c.t.

•	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—
•	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→
—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→

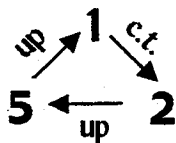
**Functional
Voice-Leading**

5 → 1

2 → 5

1 — 2

—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→
→	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—
→	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→



→	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→
—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→
→	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—

Voicing Type: Spread

—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→
•	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→
→	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—

→	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→
→	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—
—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→

→	→	C	—	C	→	E _b	→	G	—	G	→	B	→	D	—
—	→	D	→	F	→	A _b	—	A _b	→	C	→	E _b	—	E _b	→
→	→	G	→	B	—	B	→	D	→	F	—	F	→	A _b	→

M.S.R.P. CCE_b G

||: CCE_b GGB DDF A_bAC E_bE_bG BBD FFA_b:||



Chord Family: 3-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: Close to Spread
[Alternate]

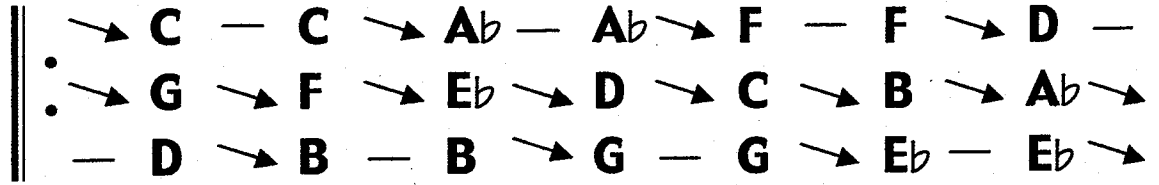
Intervallic

Voice-Leading

5 → 2nd

2 → 3rd

1 — c.t.



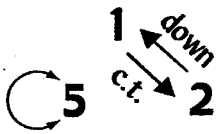
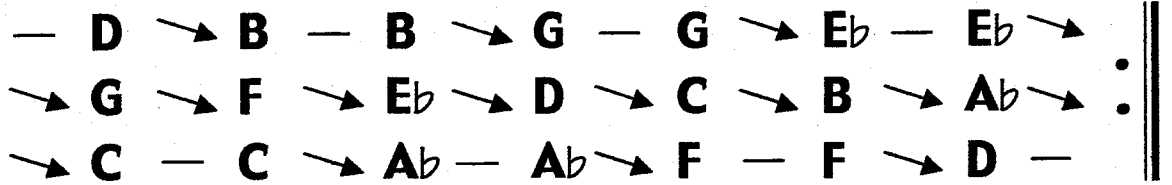
Functional

Voice-Leading

5 → 5

2 → 1

1 — 2



M.S.R.P.

1) C C A_b

2) G F E_b D C B A_b



1

2

5

Chord Family: 3-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Close

Intervallic

Voice-Leading

5 — c.t.

2 — c.t.

1 → 3rd

—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→
—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—
→	D	—	D	—	D	→	B	—	B	—	B	→	G	—

Functional

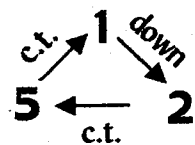
Voice-Leading

5 — 1

2 — 5

1 → 2

→	D	—	D	—	D	→	B	—	B	—	B	→	G	—
—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→
—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—



—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—
→	D	—	D	—	D	→	B	—	B	—	B	→	G	—
—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→

Voicing Type: Spread

→	D	—	D	—	D	→	B	—	B	—	B	→	G	—
—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—
—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→

—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—
—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→
→	D	—	D	—	D	→	B	—	B	—	B	→	G	—

—	C	→	A^b	—	A^b	—	A^b	→	F	—	F	—	F	→
→	D	—	D	—	D	→	B	—	B	—	B	→	G	—
—	G	—	G	→	E^b	—	E^b	—	E^b	→	C	—	C	—

M.S.R.P. **C A^b A^b A^b**

:	C	A^b	A^b	A^b	F	F	F	D	D	D	B	B	B	G	G	G	E^b	E^b	E^b	C	C	:	
	↓							↓						↓									
	1							2						5									

Chord Family: 3-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Close [Alternate]

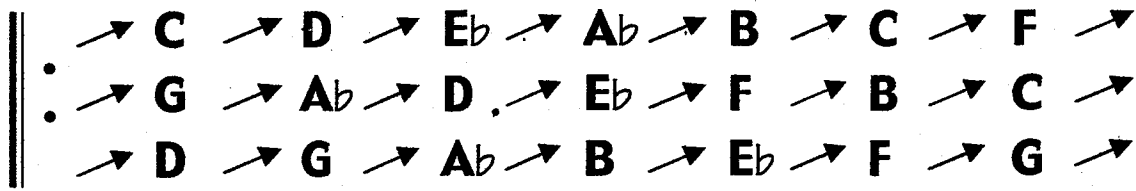
Intervallic

Voice-Leading

5 → 2nd

2 → 4th

1 → 2nd



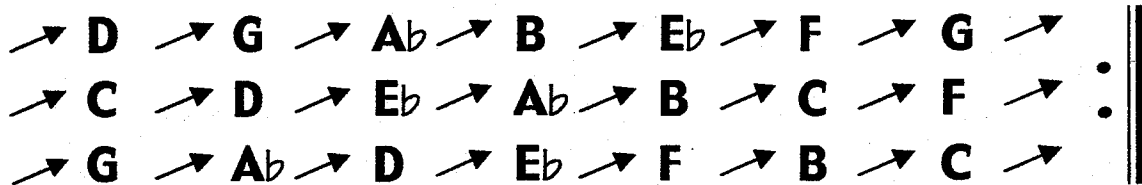
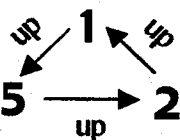
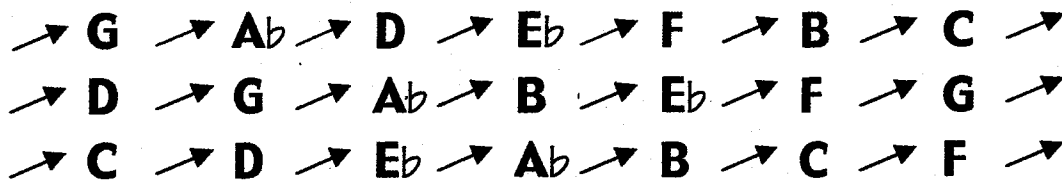
Functional

Voice-Leading

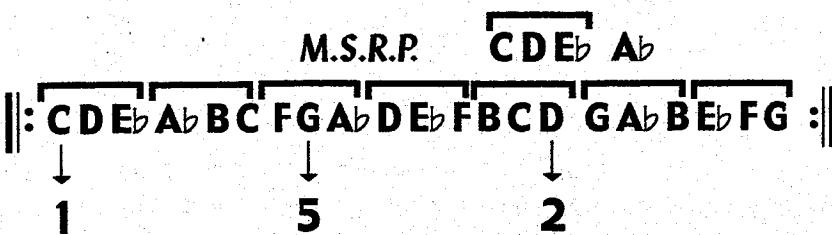
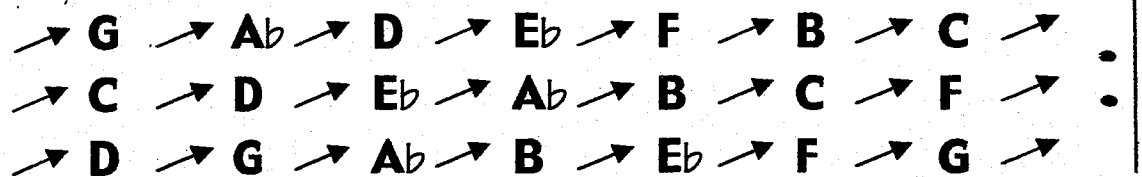
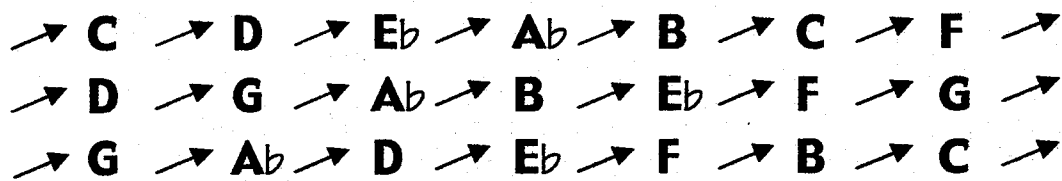
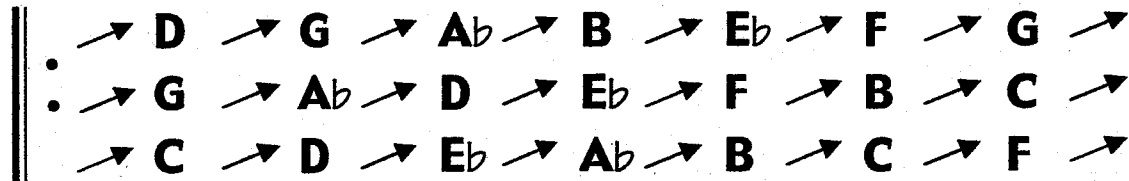
5 → 2

2 → 1

1 → 5



Voicing Type: Spread [Alternate]



Chord Family: 3-part 4ths

Cycle: 3

Scale: C harmonic minor

Voicing Type: Close

**Intervallic
Voice-Leading**

5 → 2nd

2 → 2nd

1 → 2nd

→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→
→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→
→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→

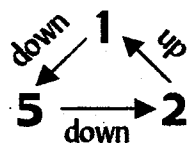
**Functional
Voice-Leading**

5 → 2

2 → 1

1 → 5

→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→
→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→
→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→



→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→
→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→
→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→

Voicing Type: Spread

→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→
→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→
→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→

→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→
→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→
→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→

→	G	→	F	→	G	→	F	→	Eb	→	F	→	Eb	→
→	C	→	B	→	Ab	→	B	→	Ab	→	G	→	Ab	→
→	D	→	Eb	→	D	→	C	→	D	→	C	→	B	→

M.S.R.P. CBA^bB

	:	C	B	A ^b	B	A ^b	G	A ^b	G	F	G	F	E ^b	F	E ^b	D	E ^b	D	C	D	C	B	:		
		↓					↓						↓												
		1					5						2												

4-PART 4THS
ALL VOICINGS
ALL CYCLES
C MAJOR

Chord Family: 4-part 4ths

Cycle: 2

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd

4 — c.t.

3 → 2nd

1 — c.t.

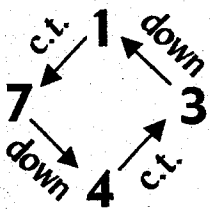
**Functional
Voice-Leading**

7 → 4

4 — 3

3 → 1

1 — 7



—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E	—	E	→	C	—	C	→	B	—
—	E	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E	—
→	C	—	C	→	A	—	A	→	G	—	G	→	E	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E	—	E	→	C	—	C	→	B	—
—	E	→	D	—	D	→	B	—	B	→	A	—	A	→
—	E	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E	—	E	→	C	—	C	→	B	—
→	F	—	F	→	E	—	E	→	C	—	C	→	B	—
—	E	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→

M.S.R.P. **CCAAG**

||: C C A A G G E E D D B B A A F F E E C C B B G G F F D D :||

1

3

4

7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 — c.t.

3 → 2nd

7 → 3rd

1 — c.t.

→ F	— F	→ E	— E	→ C	— C	→ B	—
— E	→ D	— D	→ B	— B	→ A	— A	→
— B	→ G	— G	→ F	— F	→ D	— D	→
→ C	— C	→ A	— A	→ G	— G	→ E	—

— B	→ G	— G	→ F	— F	→ D	— D	→
→ F	— F	→ E	— E	→ C	— C	→ B	—
→ C	— C	→ A	— A	→ G	— G	→ E	—
— E	→ D	— D	→ B	— B	→ A	— A	→

**Functional
Voice-Leading**

4 — 3

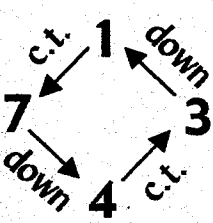
3 → 1

7 → 4

1 — 7

→ C	— C	→ A	— A	→ G	— G	→ E	—
— B	→ G	— G	→ F	— F	→ D	— D	→
— E	→ D	— D	→ B	— B	→ A	— A	→
→ F	— F	→ E	— E	→ C	— C	→ B	—

— E	→ D	— D	→ B	— B	→ A	— A	→
→ C	— C	→ A	— A	→ G	— G	→ E	—
→ F	— F	→ E	— E	→ C	— C	→ B	—
— B	→ G	— G	→ F	— F	→ D	— D	→



M.S.R.P. **CCAAG**

||: **CCAAGGEEDDBBAAFFEECCBBGGFFDD**:||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Drop 2 & 3

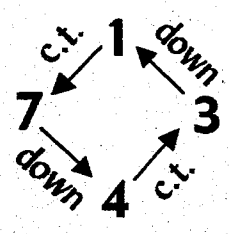
**Intervallic
Voice-Leading**

4 — c.t.
7 → 3rd
3 → 2nd
1 — c.t.

**Functional
Voice-Leading**

4 — 3
7 → 4
3 → 1
1 — 7

Intervallic Voice-Leading:
• — F — F → E — E → C — C → B —
• — B → G — G → F — F → D — D →
— E → D — D → B — B → A — A →
— C — C → A — A → G — G → E —
— B → G — G → F — F → D — D →
— C — C → A — A → G — G → E —
— F — F → E — E → C — C → B —
— E → D — D → B — B → A — A →
— C — C → A — A → G — G → E —
— E → D — D → B — B → A — A →
— F — F → E — E → C — C → B —
— C — C → A — A → G — G → E —
— B → G — G → F — F → D — D →



M.S.R.P. \overline{CCAAG}

\parallel : CCAAGGEEDDBBAAFFEECCBBGGFFDD: \parallel

↓ ↓ ↓ ↓

1 3 4 7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd

3 → 2nd

4 — c.t.

1 — c.t.

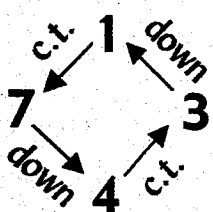
**Functional
Voice-Leading**

7 → 4

3 → 1

4 — 3

1 — 7



— B → G	— G → F	— F → D	— D →
• — E → D	— D → B	— B → A	— A →
• → F — F	→ E — E	→ C — C	→ B —
→ C — C	→ A — A	→ G — G	→ E —
→ C — C	→ A — A	→ G — G	→ E —
→ F — F	→ E — E	→ C — C	→ B —
— B → G	— G → F	— F → D	— D →
— E → D	— D → B	— B → A	— A →
— E → D	— D → B	— B → A	— A →
— B → G	— G → F	— F → D	— D →
→ C — C	→ A — A	→ G — G	→ E —
→ F — F	→ E — E	→ C — C	→ B —
→ F — F	→ E — E	→ C — C	→ B —
→ C — C	→ A — A	→ G — G	→ E —
— E → D	— D → B	— B → A	— A →
— B → G	— G → F	— F → D	— D →

M.S.R.P. \overline{CCAAG}

||: CCAAGGEEDDBBAAFFEECCBBGGFFDD:|

1

3

4

7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C major

Voicing Type: Double Drop 2,
Drop 3

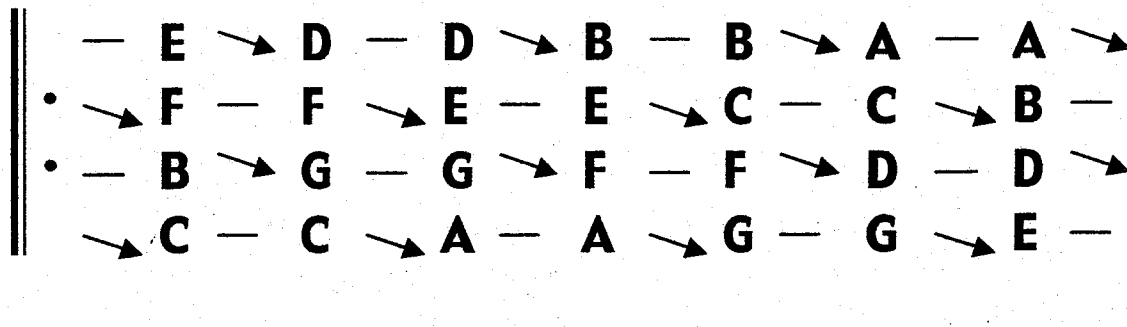
**Intervallic
Voice-Leading**

3 → 2nd

4 — c.t.

7 → 3rd

1 — c.t.



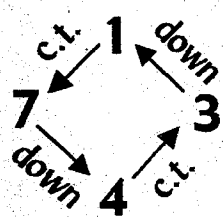
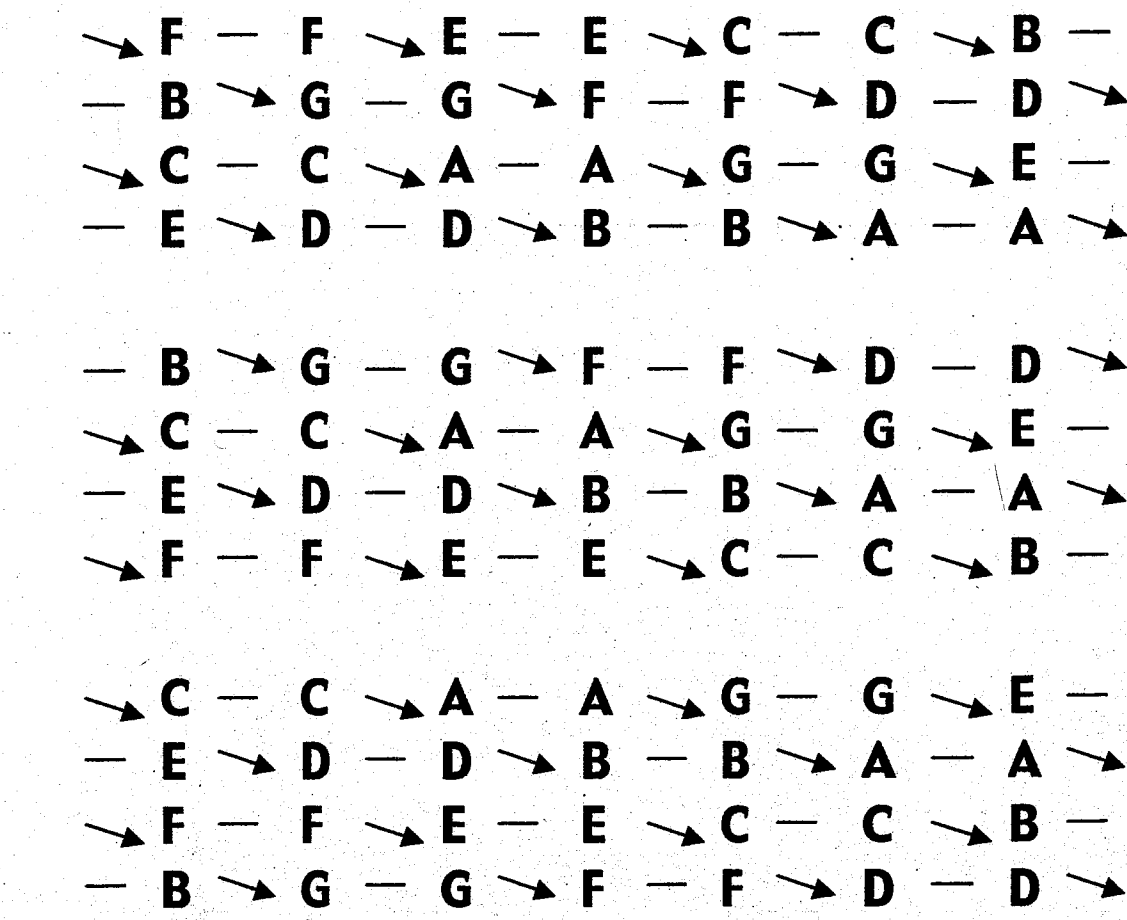
**Functional
Voice-Leading**

3 → 1

4 — 3

7 → 4

1 — 7



M.S.R.P. **CCAAG**

||: C C A A G G E E D D B B A A F F E E C C B B G G F F D D :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd

4 — c.t.

3 — c.t.

1 → 2nd

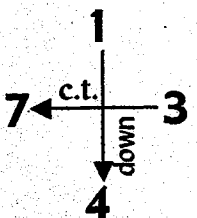
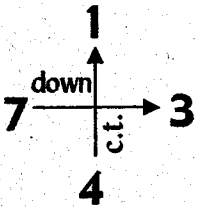
**Functional
Voice-Leading**

7 → 3

4 — 1

3 — 7

1 → 4



—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	
•	→	F	—	F	→	E	—	E	→	D	—	D	→	C	—
•	→	E	—	E	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—	
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
•	—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
•	→	F	—	F	→	E	—	E	→	D	—	D	→	C	—
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—	
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	

M.S.R.P. 1) \overline{CBBA} A 2) \overline{EEDD} C

1) \parallel : C B B A A G G F F E E D D C : \parallel 2) \parallel : E E D D C C B B A A G G F F : \parallel

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 → 2nd

4 — c.t.

1 → 2nd

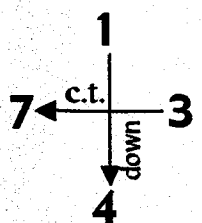
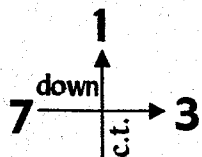
**Functional
Voice-Leading**

3 — 7

7 → 3

4 — 1

1 → 4



→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
•	—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
•	→	F	—	F	→	E	—	E	→	D	—	D	→	C	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—	
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—	
•	—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
•	—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—	
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—	
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	

M.S.R.P. 1) CBBA A 2) EEDD C

1) ||: CBBAAGGFEEEDDC: || 2) ||: EEDDCCBBAAGGF: ||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Drop 3

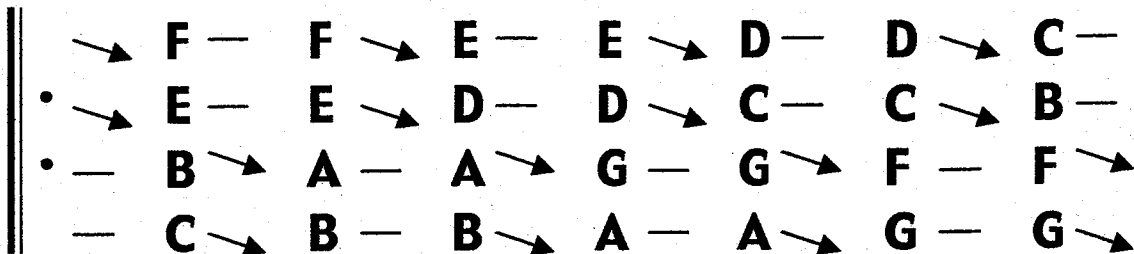
**Intervallic
Voice-Leading**

4 — c.t.

3 — c.t.

7 ↘ 2nd

1 ↘ 2nd



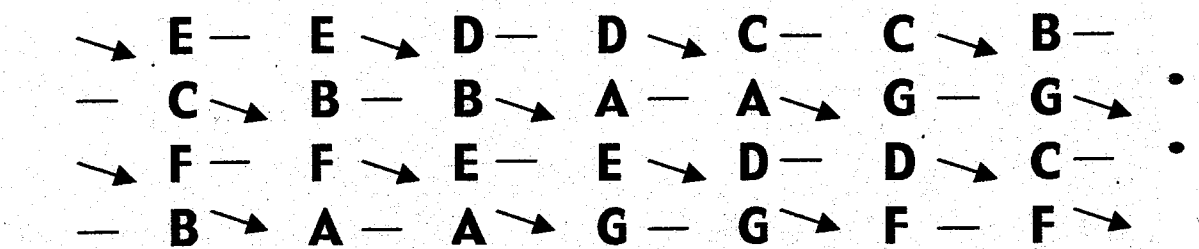
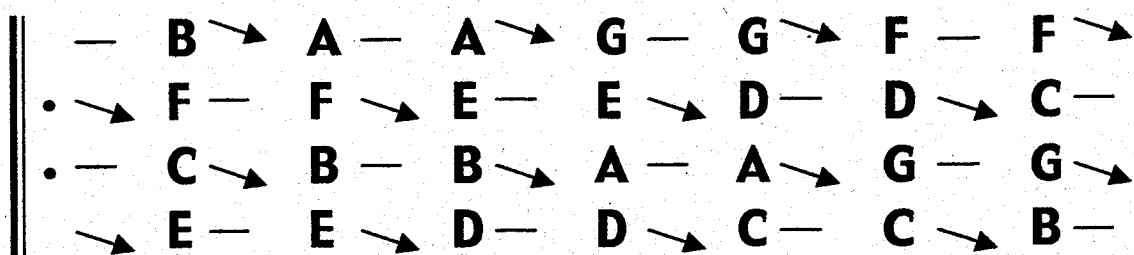
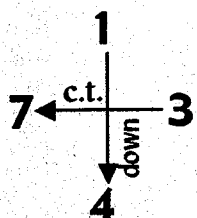
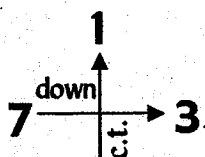
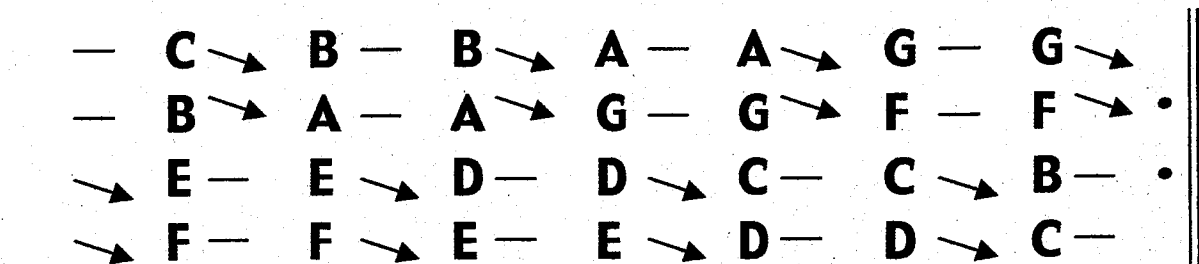
**Functional
Voice-Leading**

4 — 1

3 — 7

7 ↘ 3

1 ↘ 4



M.S.R.P. 1) $\overline{CBBA}A$ 2) $\overline{EEDD}C$

1) ||: **CBBAAGGF EEDDC** :|| 2) ||: **EEDDC CBBAAGGF** :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

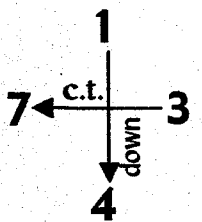
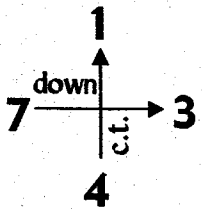
4 — c.t.
7 → 2nd
3 — c.t.
1 → 2nd

→	F	—	F	→	E	—	E	→	D	—	D	→	C	—
• —	B	→	A	—	A	→	G	—	G	→	F	—	F	→
• →	E	—	E	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—

**Functional
Voice-Leading**

4 — 1
7 → 3
3 — 7
1 → 4

—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
• —	C	→	B	—	B	→	A	—	A	→	G	—	G	→
• →	F	—	F	→	E	—	E	→	D	—	D	→	C	—
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—
→	E	—	E	→	D	—	D	→	C	—	C	→	B	—
→	F	—	F	→	E	—	E	→	D	—	D	→	C	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→



M.S.R.P. 1) $\overline{CBBA}A$ 2) $\overline{EEDD}C$

1) ||: CBBAAGGFFEEDDC: || 2) ||: EEDDCCBBAAGGFF: ||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd

3 — c.t.

4 — c.t.

1 → 2nd

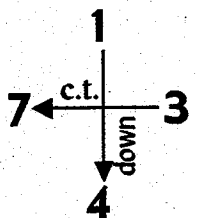
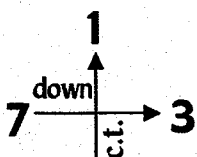
**Functional
Voice-Leading**

7 → 3

3 — 7

4 — 1

1 → 4



—	B →	A —	A →	G —	G →	F —	F →
•	→ E —	E →	D —	D →	C —	C →	B —
•	→ F —	F →	E —	E →	D —	D →	C —
—	C →	B —	B →	A —	A →	G —	G →
→	E —	E →	D —	D →	C —	C →	B —
—	B →	A —	A →	G —	G →	F —	F →
—	C →	B —	B →	A —	A →	G —	G →
→	F —	F →	E —	E →	D —	D →	C —
—	C →	B —	B →	A —	A →	G —	G →
•	→ F —	F →	E —	E →	D —	D →	C —
•	→ B →	A —	A →	G —	G →	F —	F →
→	E —	E →	D —	D →	C —	C →	B —
→	F —	F →	E —	E →	D —	D →	C —
—	C →	B —	B →	A —	A →	G —	G →
→	E —	E →	D —	D →	C —	C →	B —
—	B →	A —	A →	G —	G →	F —	F →

M.S.R.P. 1) **CBBA A** 2) **EEDDC**

1) ||: **CBBAAGGFF EEDDC** :|| 2) ||: **EEDDC CBBAAGGFF** :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C major

Voicing Type: Double Drop 2,
Drop 3

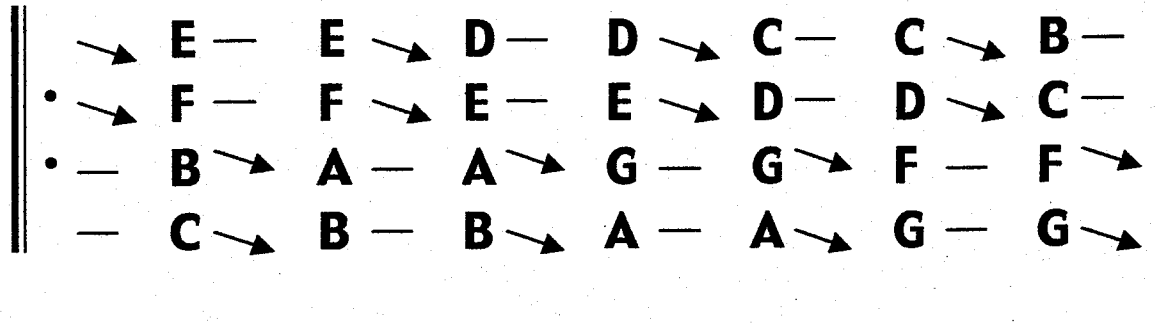
**Intervallic
Voice-Leading**

3 — c.t.

4 — c.t.

7 → 2nd

1 → 2nd



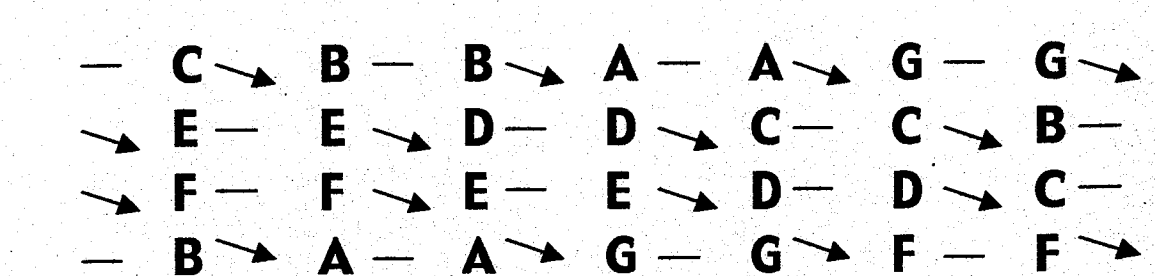
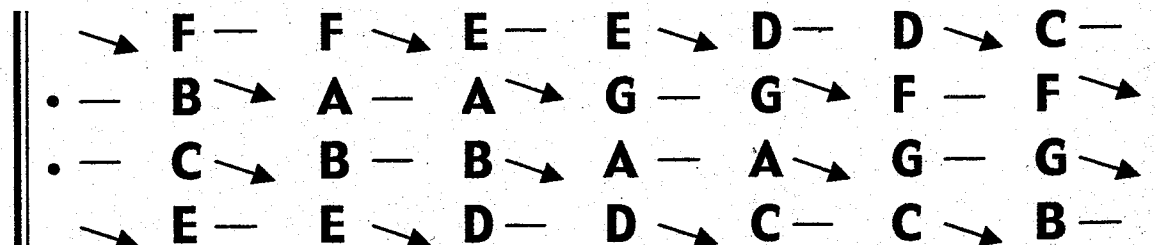
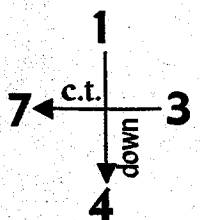
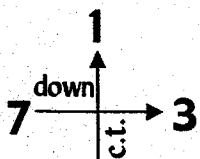
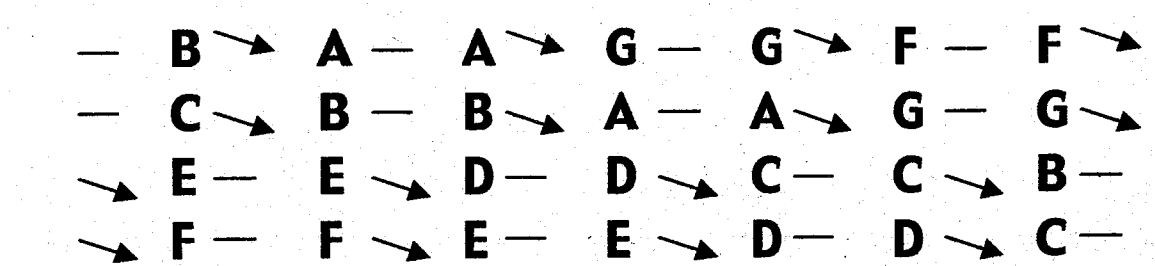
**Functional
Voice-Leading**

3 — 7

4 — 1

7 → 3

1 → 4



M.S.R.P. 1) $\overline{CBBA}A$ 2) $\overline{EEDD}C$

1) ||: CBBAAGGF EEDDC :|| 2) ||: EEDDC CBBAAGGF :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 6

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd

4 → 2nd

3 → 2nd

1 — c.t.

→	B	→	A	—	A	→	G	→	A	→	G	—	G	→	
•	→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
•	—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→	

→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→

**Functional
Voice-Leading**

7 → 1

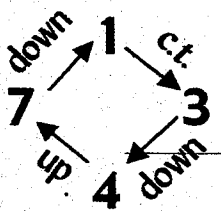
4 → 7

3 → 4

1 — 3

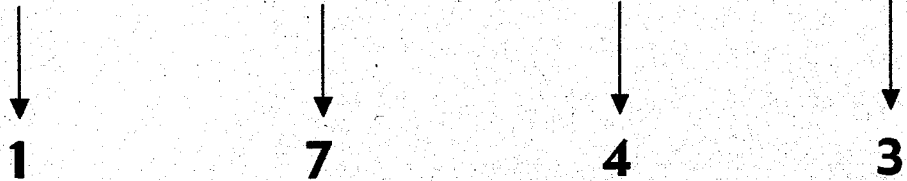
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—

→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→



M.S.R.P. \overline{CCBCB}

||: C C B C B B A B A A G A G G F G F F E F E E D E D D C D :||



Chord Family: 4-part 4ths

Cycle: 6

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 → 2nd

7 → 2nd

4 → 2nd

1 — c.t.

—	E →	D →	E →	D —	D →	C →	D →
• →	B →	A —	A →	G →	A →	G —	G →
• →	F →	G →	F —	F →	E →	F →	E —
→	C —	C →	B →	C →	B —	B →	A →

→	C —	C →	B →	C →	B —	B →	A →
→	F →	G →	F —	F →	E →	F →	E —
—	E →	D →	E →	D —	D →	C →	D →
→	B →	A —	A →	G →	A →	G —	G →

**Functional
Voice-Leading**

3 → 4

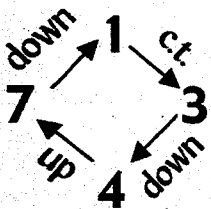
7 → 1

4 → 7

1 — 3

→	B →	A —	A →	G →	A →	G —	G →
—	E →	D →	E →	D —	D →	C →	D →
→	C —	C →	B →	C →	B —	B →	A →
→	F →	G →	F —	F →	E →	F →	E —

→	F →	G →	F —	F →	E →	F →	E —
→	C —	C →	B →	C →	B —	B →	A →
→	B →	A —	A →	G →	A →	G —	G →
—	E →	D →	E →	D —	D →	C →	D →



M.S.R.P. \overline{CCBCB}

||:CCBCBBABAAGAGGFGEFEFEEDDCCD:||

↓		↓		↓		↓
1		7		4		3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd

3 → 2nd

7 → 2nd

1 — c.t.

→	F	→	G	→	F	—	F	→	E	→	F	→	E	—	
•	—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
•	→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→	

**Functional
Voice-Leading**

4 → 7

3 → 4

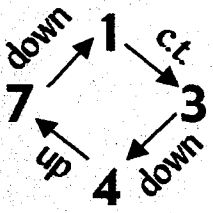
7 → 1

1 — 3

—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→

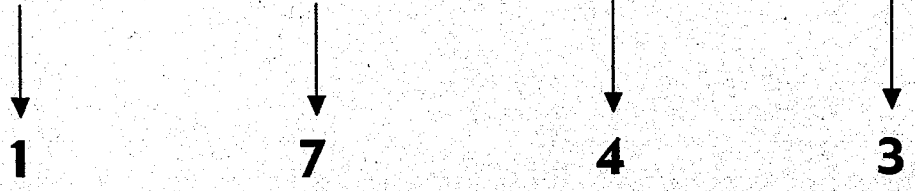
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—

→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→



M.S.R.P. **CCBCB**

||: **CCBCBBAAGGGFFFEEDDCD** :||



Chord Family: 4-part 4ths

Cycle: 6

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

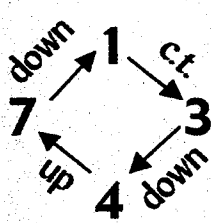
- 7 → 2nd
- 3 → 2nd
- 4 → 2nd
- 1 — c.t.

→	B	→	A	—	A	→	G	→	A	→	G	—	G	→	
•	—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
•	→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→	

**Functional
Voice-Leading**

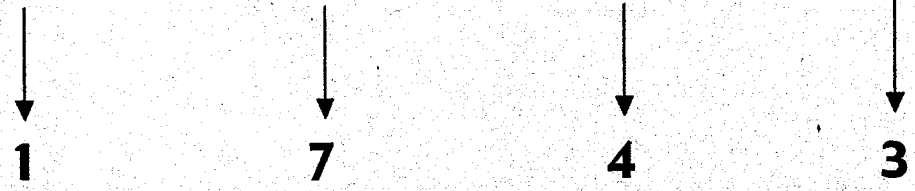
- 7 → 1
- 3 → 4
- 4 → 7
- 1 — 3

→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	F	→	G	→	F	—	F	→	E	→	F	→	E	—
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
—	E	→	D	→	E	→	D	—	D	→	C	→	D	→



M.S.R.P. **CCBCB**

||: C C B C B B A B A A G A G G F G F F E F E E D E D D C D :||



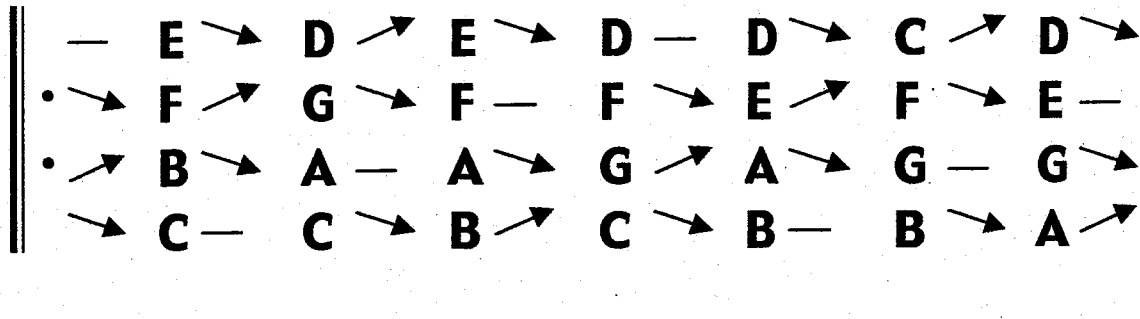
Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 6

Scale: C major

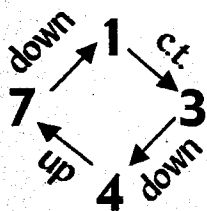
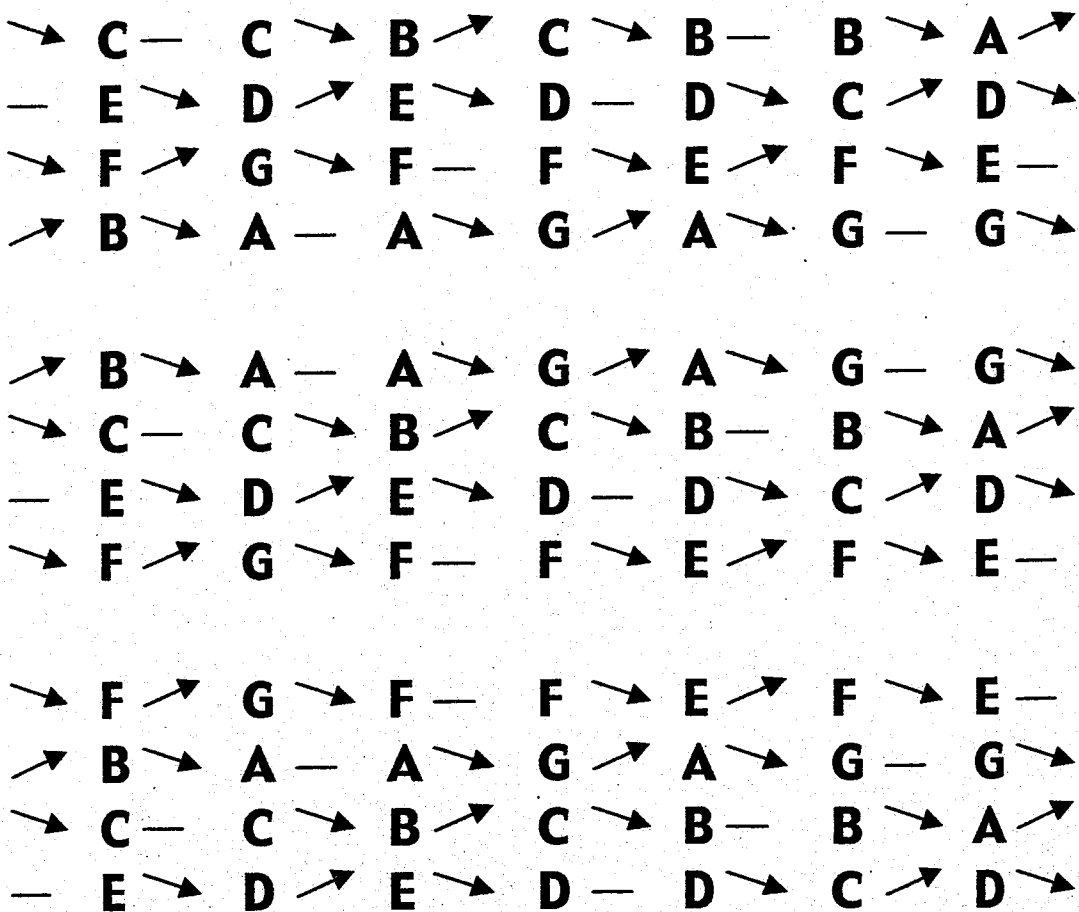
**Intervallic
 Voice-Leading**

3 → 2nd
 4 → 2nd
 7 → 2nd
 1 — c.t.



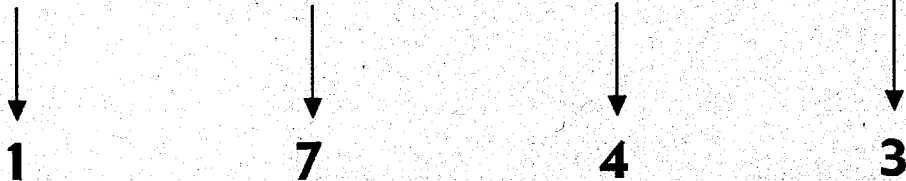
**Functional
 Voice-Leading**

3 → 4
 4 → 7
 7 → 1
 1 — 3



M.S.R.P. \overline{CCBCB}

||: C C B C B B A B A A G A G G F G F F E F E E D E D D C D :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C major

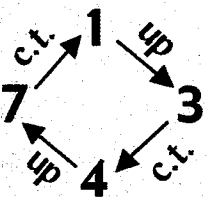
Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.
4 → 3rd
3 — c.t.
1 → 2nd

**Functional
Voice-Leading**

7 — 1
4 → 7
3 — 4
1 → 3



• → B — B → C — C → E — E → F —
• — F → A — A → B — B → D — D →
• → E — E → G — G → A — A → C —
— C → D — D → F — F → G — G →
— F → A — A → B — B → D — D →
→ E — E → G — G → A — A → C —
— C → D — D → F — F → G — G →
→ B — B → C — C → E — E → F —
→ E — E → G — G → A — A → C —
— C → D — D → F — F → G — G →
→ B — B → C — C → E — E → F —
— F → A — A → B — B → D — D →
— C → D — D → F — F → G — G →
→ B — B → C — C → E — E → F —
— F → A — A → B — B → D — D →
→ E — E → G — G → A — A → C —

M.S.R.P. C D D F F

||: C D D F F G G B B C C E E F F A A B B D D E E G G A A C :||

↓ ↓ ↓ ↓

1 7 4 3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 — c.t.

4 → 3rd

1 → 2nd

→	E —	E →	G —	G →	A —	A →	C —
• →	B —	B →	C —	C →	E —	E →	F —
• —	F →	A —	A →	B —	B →	D —	D →
—	C →	D —	D →	F —	F →	G —	G →

—	C →	D —	D →	F —	F →	G —	G →
—	F →	A —	A →	B —	B →	D —	D →

**Functional
Voice-Leading**

3 — 4

7 — 1

4 → 7

1 → 3

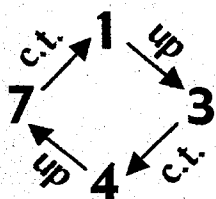
→	E —	E →	G —	G →	A —	A →	C —
→	B —	B →	C —	C →	E —	E →	F —

→	B —	B →	C —	C →	E —	E →	F —
→	E —	E →	G —	G →	A —	A →	C —

—	C →	D —	D →	F —	F →	G —	G →
—	F →	A —	A →	B —	B →	D —	D →

—	F →	A —	A →	B —	B →	D —	D →
—	C →	D —	D →	F —	F →	G —	G →

→	B —	B →	C —	C →	E —	E →	F —
→	E —	E →	G —	G →	A —	A →	C —



M.S.R.P. **C D D F F**

||: **C D D F F G G B B C C E E F F A A B B D D E E G G A A C**:||

↓		↓		↓		↓
1		7		4		3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 3rd

3 — c.t.

7 — c.t.

1 → 2nd

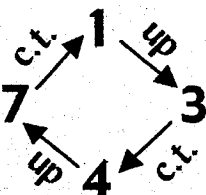
**Functional
Voice-Leading**

4 → 7

3 — 4

7 — 1

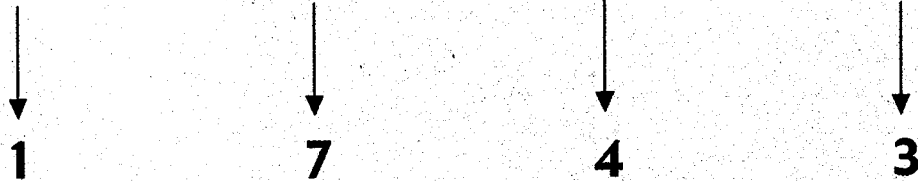
1 → 3



—	F →	A —	A →	B —	B →	D —	D →
• →	E —	E →	G —	G →	A —	A →	C —
• →	B —	B →	C —	C →	E —	E →	F —
—	C →	D —	D →	F —	F →	G —	G →
→	E —	E →	G —	G →	A —	A →	C —
—	C →	D —	D →	F —	F →	G —	G →
—	F →	A —	A →	B —	B →	D —	D →
→	B —	B →	C —	C →	E —	E →	F —
—	C →	D —	D →	F —	F →	G —	G →
→	B —	B →	C —	C →	E —	E →	F —
→	E —	E →	G —	G →	A —	A →	C —
—	F →	A —	A →	B —	B →	D —	D →
→	B —	B →	C —	C →	E —	E →	F —
—	F →	A —	A →	B —	B →	D —	D →
—	C →	D —	D →	F —	F →	G —	G →
→	E —	E →	G —	G →	A —	A →	C —

M.S.R.P. **C D D F F**

||: C D D F F G G B B C C E E F F A A B B D D E E G G A A C :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C major

Voicing Type: Drop 2 & 3

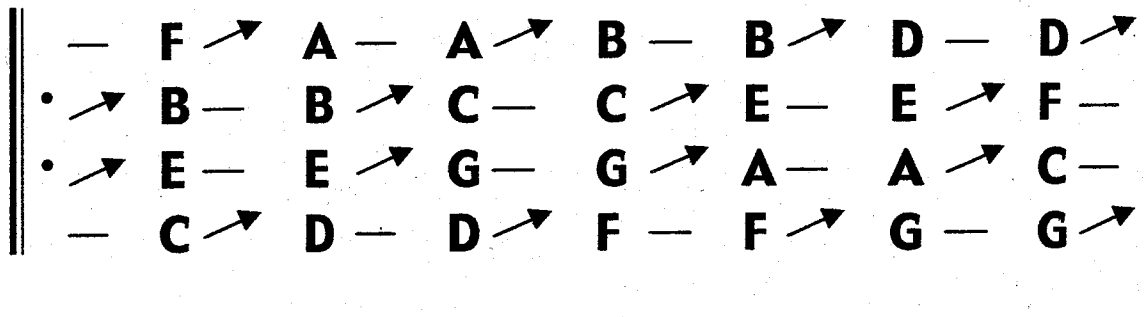
**Intervallic
Voice-Leading**

4 → 3rd

7 — c.t.

3 — c.t.

1 → 2nd



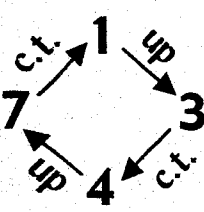
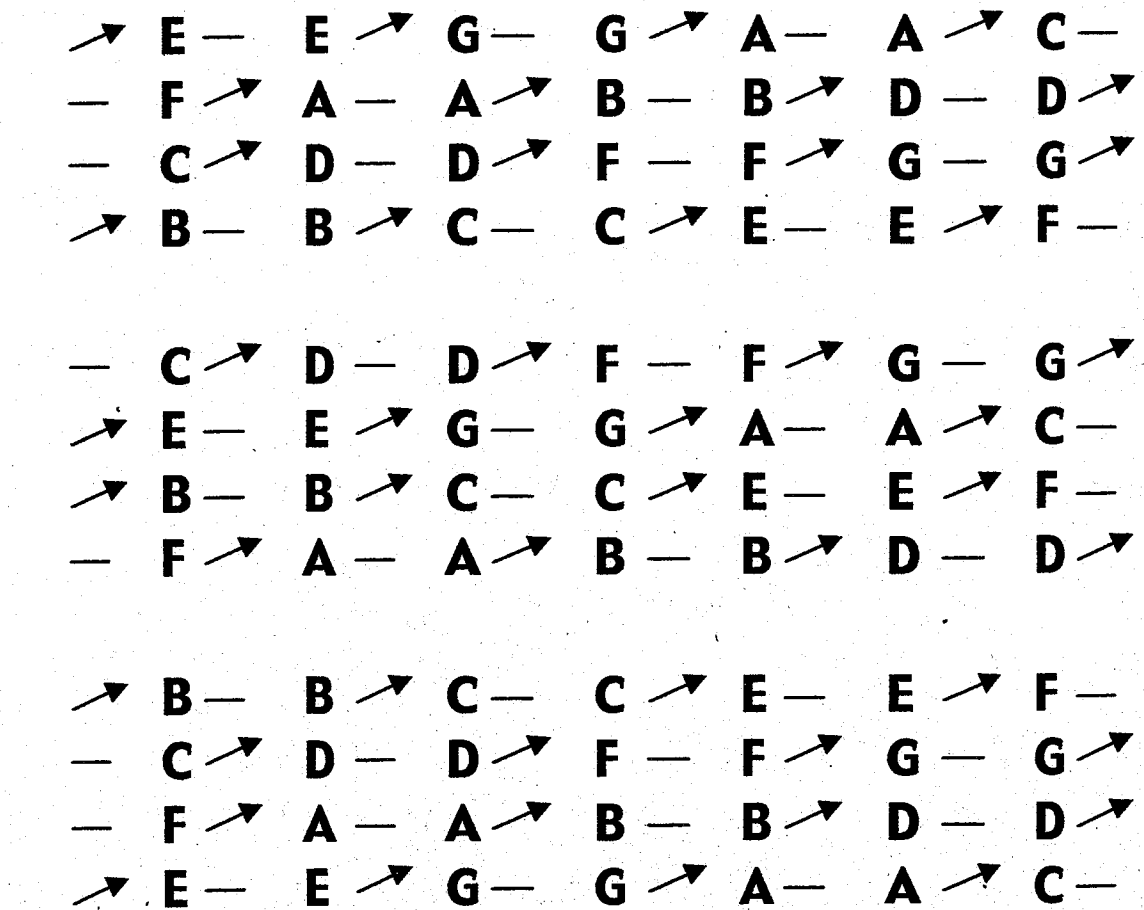
**Functional
Voice-Leading**

4 → 7

7 — 1

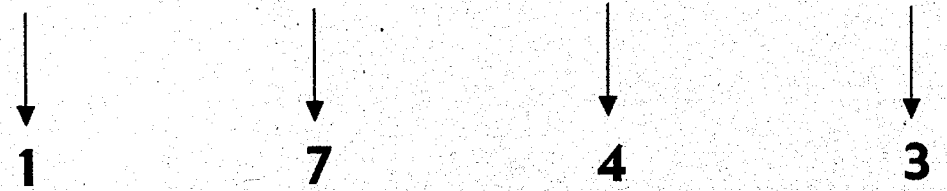
3 — 4

1 → 3



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C E E F F A A B B D D E E G G A A C :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 — c.t.

3 — c.t.

4 → 3rd

1 → 2nd

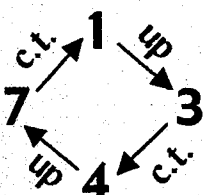
**Functional
Voice-Leading**

7 — 1

3 — 4

4 → 7

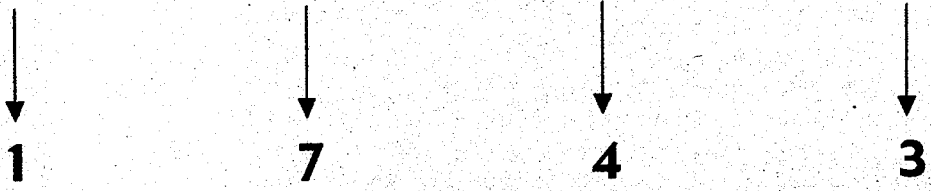
1 → 3



• → B —	B → C —	C → E —	E → F —
• → E —	E → G —	G → A —	A → C —
• — F →	A — A →	B — B →	D — D →
— C →	D — D →	F — F →	G — G →
— F →	A — A →	B — B →	D — D →
— C →	D — D →	F — F →	G — G →
→ E —	E → G —	G → A —	A → C —
→ B —	B → C —	C → E —	E → F —
→ E —	E → G —	G → A —	A → C —
→ B —	B → C —	C → E —	E → F —
— C →	D — D →	F — F →	G — G →
— F →	A — A →	B — B →	D — D →
— C →	D — D →	F — F →	G — G →
— F →	A — A →	B — B →	D — D →
→ B —	B → C —	C → E —	E → F —
→ E —	E → G —	G → A —	A → C —

M.S.R.P. **C D D F F**

||: C D D F F G G B B C C E E F F A A B B D D E E G G A A C :||



Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 7

Scale: C major

**Intervallic
 Voice-Leading**

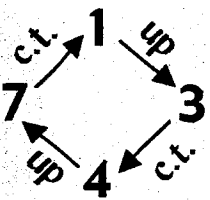
3 — c.t.
 4 → 3rd
 7 — c.t.
 1 → 2nd

•	→	E —	E →	G —	G →	A —	A →	C —
•	→	F →	A —	A →	B —	B →	D —	D →
•	→	B —	B →	C —	C →	E —	E →	F —
•	→	C →	D —	D →	F —	F →	G —	G →

**Functional
 Voice-Leading**

3 — 4
 4 → 7
 7 — 1
 1 → 3

—	→	C →	D —	D →	F —	F →	G —	G →
→	E —	E →	G —	G →	A —	A →	C —	
—	→	F →	A —	A →	B —	B →	D —	D →
→	B —	B →	C —	C →	E —	E →	F —	
→	B —	B →	C —	C →	E —	E →	F —	
—	→	C →	D —	D →	F —	F →	G —	G →
→	E —	E →	G —	G →	A —	A →	C —	
—	→	F →	A —	A →	B —	B →	D —	D →
→	B —	B →	C —	C →	E —	E →	F —	
—	→	C →	D —	D →	F —	F →	G —	G →
→	E —	E →	G —	G →	A —	A →	C —	



M.S.R.P. $\overline{\text{C D D F F}}$

||: C D D F F G G B B C C E E F F A A B B D D E E G G A A C :||



Chord Family: 4-part 4ths

Cycle: 5

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.

4 → 2nd

3 → 2nd

1 — c.t.

→	B	—	B	→	C	—	C	→	D	—	D	→	E	—	
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
•	—	E	→	F	—	F	→	G	—	G	→	A	—	A	→
→	C	—	C	→	D	—	D	→	E	—	E	→	F	—	

—	E	→	F	—	F	→	G	—	G	→	A	—	A	→
→	C	—	C	→	D	—	D	→	E	—	E	→	F	—
→	B	—	B	→	C	—	C	→	D	—	D	→	E	—
—	F	→	G	—	G	→	A	—	A	→	B	—	B	→

**Functional
Voice-Leading**

7 — 3

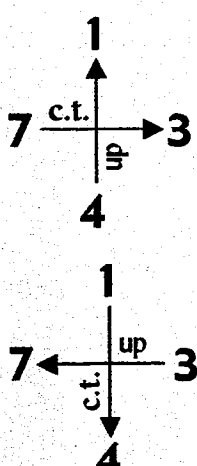
4 → 1

3 → 7

1 — 4

→	C	—	C	→	D	—	D	→	E	—	E	→	F	—	
•	→	B	—	B	→	C	—	C	→	D	—	D	→	E	—
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
—	E	→	F	—	F	→	G	—	G	→	A	—	A	→	

—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
—	E	→	F	—	F	→	G	—	G	→	A	—	A	→
→	C	—	C	→	D	—	D	→	E	—	E	→	F	—
→	B	—	B	→	C	—	C	→	D	—	D	→	E	—



M.S.R.P. 1) \overline{CCD}

2) \overline{EFF}

1) $\parallel: CCDD E E F F G G A A B B : \parallel$ 2) $\parallel: E F F G G A A B B C C D D E : \parallel$

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 → 2nd
7 — c.t.
4 → 2nd
1 — c.t.

•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—

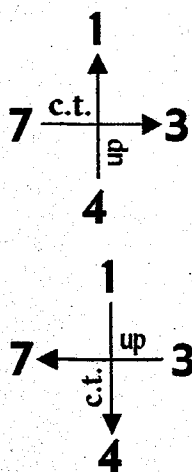
**Functional
Voice-Leading**

3 → 7
7 — 3
4 → 1
1 — 4

•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗

•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗

•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—



M.S.R.P. 1) \overline{CCD}

2) \overline{EFF}

1) $\parallel: C C D D E E F F G G A A B B : \parallel$ 2) $\parallel: E F F G G A A B B C C D D E : \parallel$

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

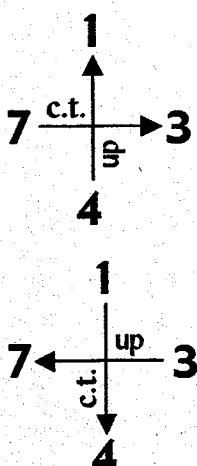
4 → 2nd
3 → 2nd
7 — c.t.
1 — c.t.

•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗

**Functional
Voice-Leading**

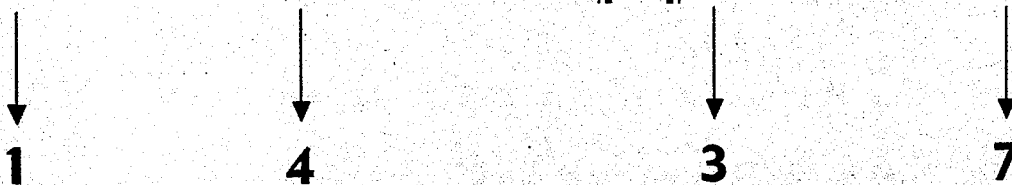
4 → 1
3 → 7
7 — 3
1 — 4

•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—



M.S.R.P. 1) \overline{CCD} 2) \overline{EFF}

1) ||: C C D D E E F F G G A A B B :|| 2) ||: E F F G G A A B B C C D D E :||



Chord Family: 4-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 2nd

7 — c.t.

3 → 2nd

1 — c.t.

•	— F	↗	G	— G	↗	A	— A	↗	B	— B	↗	
•	↗ B	— B	↗ C	— C	↗ D	— D	↗ E	— E				
•	— E	↗ F	— F	↗ G	— G	↗ A	— A	↗				
	↗ C	— C	↗ D	— D	↗ E	— E	↗ F	— F				
	↗ C	— C	↗ D	— D	↗ E	— E	↗ F	— F				
	— E	↗ F	— F	↗ G	— G	↗ A	— A	↗				
	↗ B	— B	↗ C	— C	↗ D	— D	↗ E	— E				
	— F	↗ G	— G	↗ A	— A	↗ B	— B	↗				

**Functional
Voice-Leading**

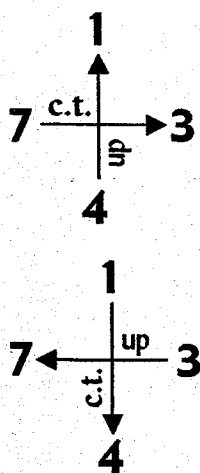
4 → 1

7 — 3

3 → 7

1 — 4

•	↗ B	— B	↗ C	— C	↗ D	— D	↗ E	— E				
•	↗ C	— C	↗ D	— D	↗ E	— E	↗ F	— F				
•	— F	↗ G	— G	↗ A	— A	↗ B	— B	↗				
	— E	↗ F	— F	↗ G	— G	↗ A	— A	↗				
	— E	↗ F	— F	↗ G	— G	↗ A	— A	↗				
	— F	↗ G	— G	↗ A	— A	↗ B	— B	↗				
	↗ C	— C	↗ D	— D	↗ E	— E	↗ F	— F				
	↗ B	— B	↗ C	— C	↗ D	— D	↗ E	— E				



M.S.R.P. 1) \overline{CCD}

2) \overline{EFF}

1) ||: C C D D E E F F G G A A B B :|| 2) ||: E F F G G A A B B C C D D E :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C major

Voicing Type: Drop 2 & 4

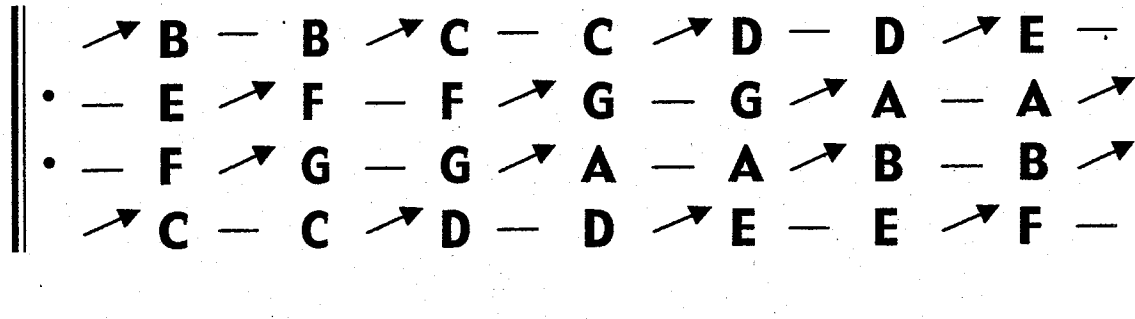
**Intervallic
Voice-Leading**

7 — c.t.

3 → 2nd

4 → 2nd

1 — c.t.



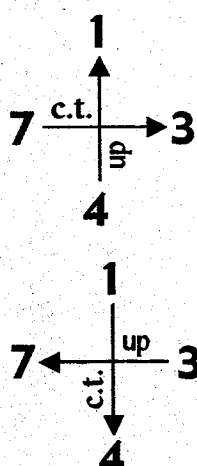
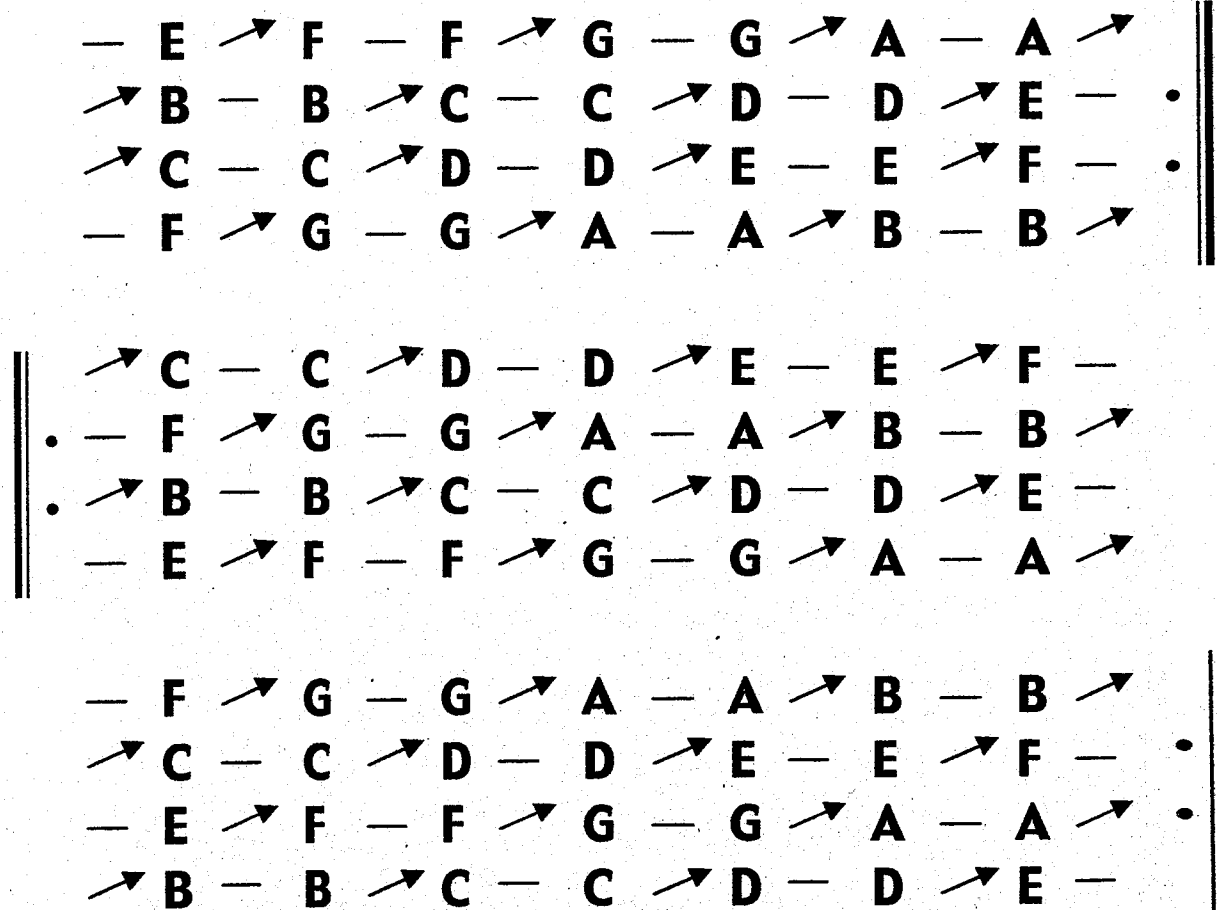
**Functional
Voice-Leading**

7 — 3

3 → 7

4 → 1

1 — 4



M.S.R.P. 1) \overline{CCD}

2) \overline{EFF}

1) $\parallel: CC DDEEFFGG AAB B: \parallel$ 2) $\parallel: EFFGGGAABB CC DDE =: \parallel$

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 5

Scale: C major

**Intervallic
 Voice-Leading**

3 → 2nd
 4 → 2nd
 7 — c.t.
 1 — c.t.

	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—

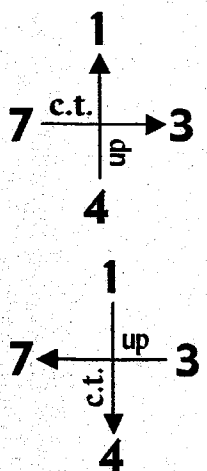
**Functional
 Voice-Leading**

3 → 7
 4 → 1
 7 — 3
 1 — 4

	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗

	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—
•	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗

	↗	C	—	C	↗	D	—	D	↗	E	—	E	↗	F	—
	—	E	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E	—



M.S.R.P. 1) \overline{CCD} 2) \overline{EFF}

1) ||: C C D D E E F F G G A A B B :|| 2) ||: E F F G G A A B B C C D D E :||

↓ ↓ ↓ ↓
 1 4 3 7

Chord Family: 4-part 4ths

Cycle: 3

Scale: C major

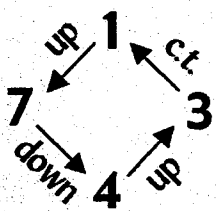
Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd
4 → 2nd
3 — c.t.
1 → 2nd

**Functional
Voice-Leading**

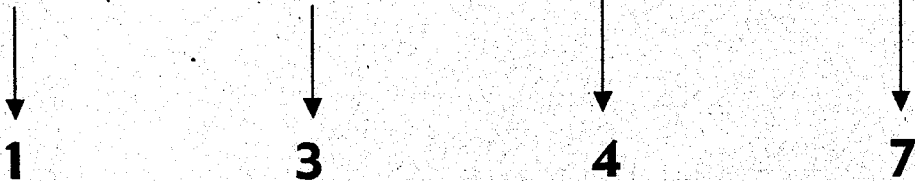
7 → 4
4 → 3
3 — 1
1 → 7



→ B	→ A	→ B	— B	→ C	→ B	→ C	—
• → F	→ G	— G	→ A	→ G	→ A	— A	→
• → E	— E	→ F	→ E	→ F	— F	→ G	→
— C	→ D	→ C	→ D	— D	→ E	→ D	→
— C	→ D	→ C	→ D	— D	→ E	→ D	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ E	— E	→ F	→ E	→ F	— F	→ G	→
→ E	— E	→ F	→ E	→ F	— F	→ G	→
— C	→ D	→ C	→ D	— D	→ E	→ D	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ E	— E	→ F	→ E	→ F	— F	→ G	→
— C	→ D	→ C	→ D	— D	→ E	→ D	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ E	— E	→ F	→ E	→ F	— F	→ G	→
— C	→ D	→ C	→ D	— D	→ E	→ D	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—

M.S.R.P. **CDCDD**

||:C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 ↘ 2nd

4 ↘ 2nd

1 ↘ 2nd

↗	E	—	E	↗	F	↘	E	↗	F	—	F	↗	G	↘
↗	B	↘	A	↗	B	—	B	↗	C	↘	B	↗	C	—
↘	F	↗	G	—	G	↗	A	↘	G	↗	A	—	A	↗
—	C	↗	D	↘	C	↗	D	—	D	↗	E	↘	D	↗

**Functional
Voice-Leading**

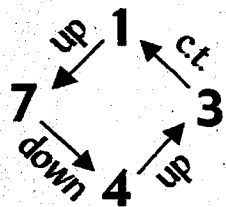
3 — 1

7 ↘ 4

4 ↘ 3

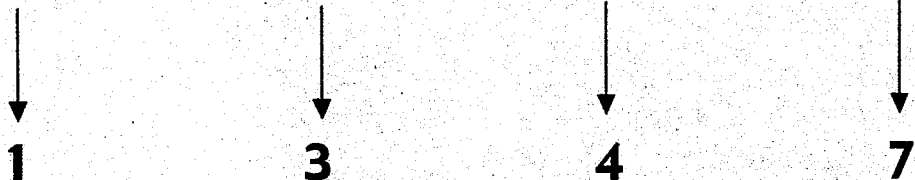
1 ↘ 7

↘	F	↗	G	—	G	↗	A	↘	G	↗	A	—	A	↗
—	C	↗	D	↘	C	↗	D	—	D	↗	E	↘	D	↗
↗	B	↘	A	↗	B	—	B	↗	C	↘	B	↗	C	—
↗	E	—	E	↗	F	↘	E	↗	F	—	F	↗	G	↘
—	C	↗	D	↘	C	↗	D	—	D	↗	E	↘	D	↗
↘	F	↗	G	—	G	↗	A	↘	G	↗	A	—	A	↗
—	C	↗	D	↘	C	↗	D	—	D	↗	E	↘	D	↗
↘	F	↗	G	—	G	↗	A	↘	G	↗	A	—	A	↗
↗	E	—	E	↗	F	↘	E	↗	F	—	F	↗	G	↘
↗	B	↘	A	↗	B	—	B	↗	C	↘	B	↗	C	—



M.S.R.P. \overline{CDCDD}

||: C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C major

Voicing Type: Drop 3

Intervallic

Voice-Leading

4 → 2nd

3 — c.t.

7 → 2nd

1 → 2nd

→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
•	→	E	—	E	→	F	→	E	→	F	—	F	→	G	→
•	→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→	

Functional

Voice-Leading

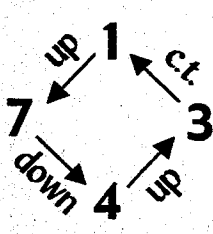
4 → 3

3 — 1

7 → 4

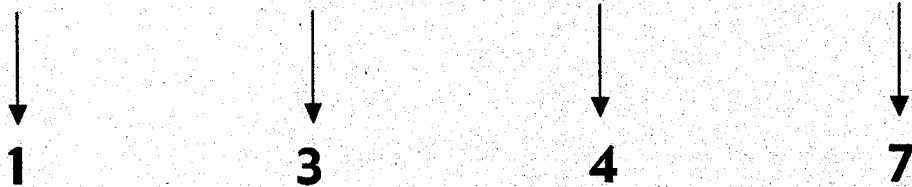
1 → 7

→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→
→	E	—	E	→	F	→	E	→	F	—	F	→	G	—
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	E	—	E	→	F	→	E	→	F	—	F	→	G	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E	—	E	→	F	→	E	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. $\overline{C D C D D}$

||: C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths
Voicing Type: Drop 2 & 3

Cycle: 3

Scale: C major

**Intervallic
Voice-Leading**

4 ↗ 2nd
 7 ↗ 2nd
 3 — c.t.
 1 ↗ 2nd

→	F ↗	G —	G ↗	A ↗	G ↗	A —	A ↗
•	↗ B ↘	A ↗	B —	B ↗	C ↘	B ↗	C —
•	↗ E —	E ↗	F ↘	E ↗	F —	F ↗	G —
—	C ↗	D ↘	C ↗	D —	D ↗	E ↘	D ↗

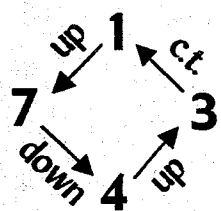
↗	B ↘	A ↗	B —	B ↗	C ↘	B ↗	C —
—	C ↗	D ↘	C ↗	D —	D ↗	E ↘	D ↗
↗	F ↗	G —	G ↗	A ↗	G ↗	A —	A ↗
↗	E —	E ↗	F ↘	E ↗	F —	F ↗	G —

**Functional
Voice-Leading**

4 ↗ 3
 7 ↗ 4
 3 — 1
 1 ↗ 7

—	C ↗	D ↘	C ↗	D —	D ↗	E ↘	D ↗
↗	E —	E ↗	F ↘	E ↗	F —	F ↗	G —
↗	B ↘	A ↗	B —	B ↗	C ↘	B ↗	C —
↘	F ↗	G —	G ↗	A ↗	G ↗	A —	A ↗

↗	E —	E ↗	F ↘	E ↗	F —	F ↗	G ↗
↘	F ↗	G —	G ↗	A ↗	G ↗	A —	A ↗
—	C ↗	D ↘	C ↗	D —	D ↗	E ↘	D ↗
↗	B ↘	A ↗	B —	B ↗	C ↘	B ↗	C —



M.S.R.P. C D C D D

||: C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||

↓ ↓ ↓ ↓

1 3 4 7

Chord Family: 4-part 4ths

Cycle: 3

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd

3 — c.t.

4 → 2nd

1 → 2nd

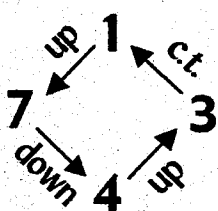
**Functional
Voice-Leading**

7 → 4

3 — 1

4 → 3

1 → 7



→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	
•	→	E	—	E	→	F	→	E	→	F	—	F	→	G	—
•	→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→	
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→	
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	
→	E	—	E	→	F	→	E	→	F	—	F	→	G	—	
→	E	—	E	→	F	→	E	→	F	—	F	→	G	—	
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→	
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
—	C	→	D	→	C	→	D	—	D	→	E	→	D	→	
→	E	—	E	→	F	→	E	→	F	—	F	→	G	→	
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	

M.S.R.P. $\overline{C D C D D}$

||: C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||

↓
1

↓
3

↓
4

↓
7

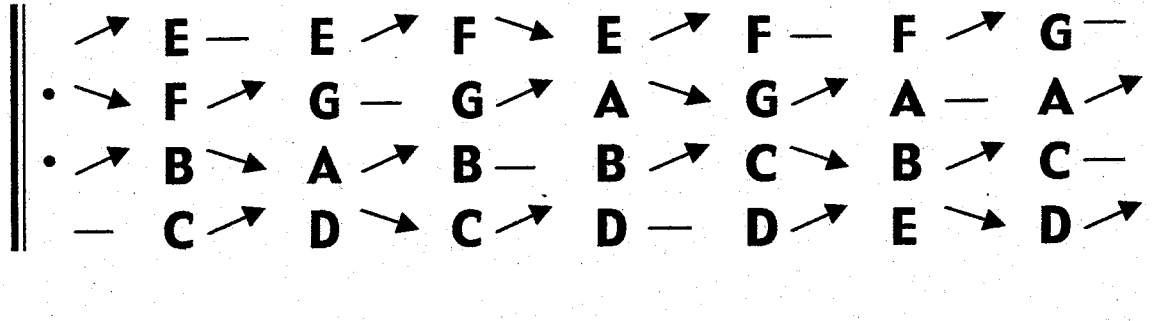
Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 3

Scale: C major

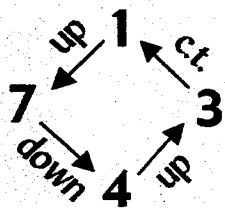
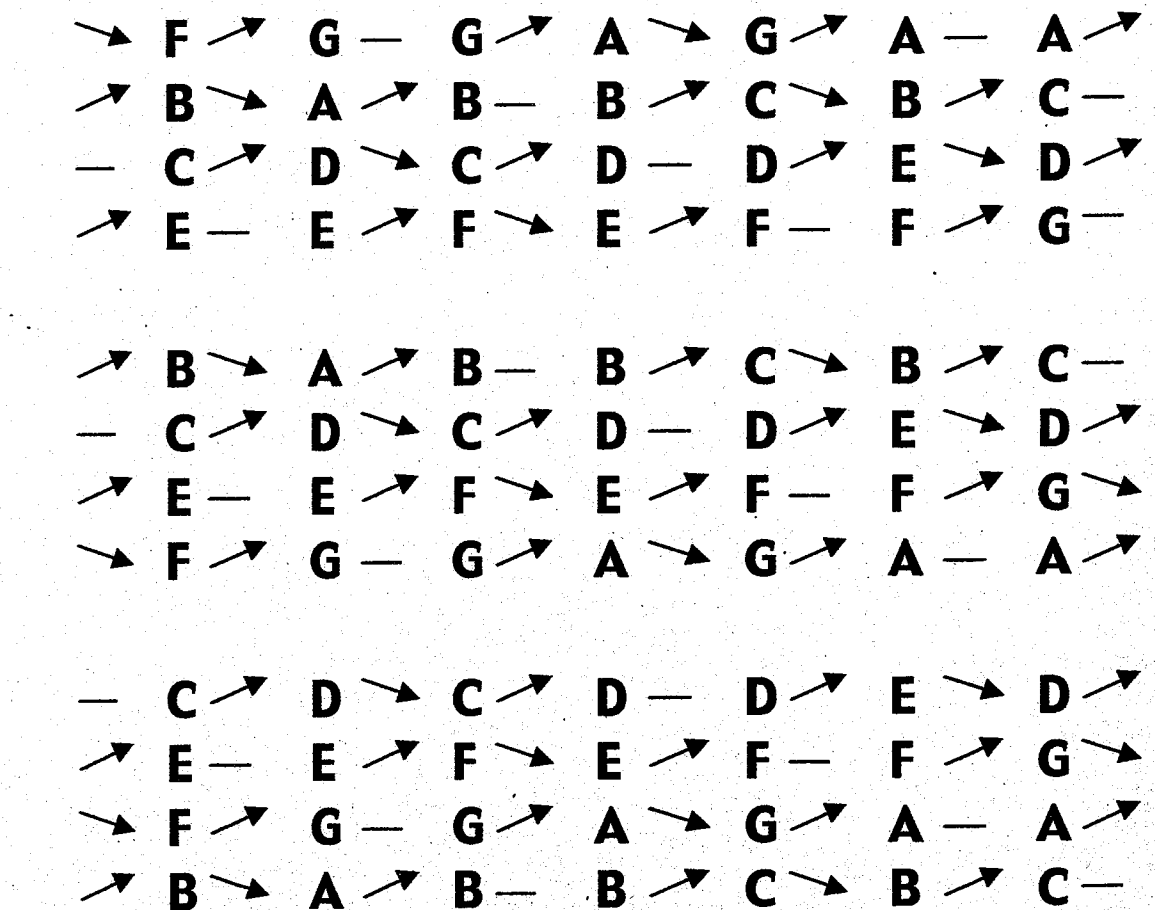
**Intervallic
 Voice-Leading**

3 — c.t.
 4 → 2nd
 7 ↘ 2nd
 1 → 2nd



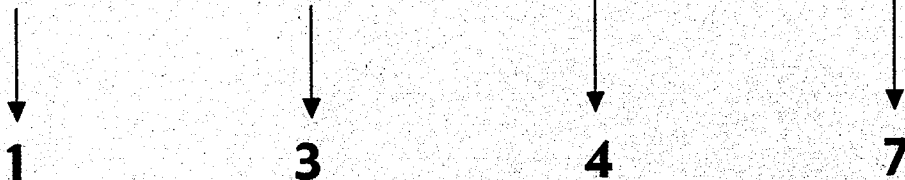
**Functional
 Voice-Leading**

3 — 1
 4 → 3
 7 ↘ 4
 1 → 7



M.S.R.P. C D C D D

||: C D C D D E D E E F E F F G F G G A G A A B A B B C B C :||



4-PART 4THS
ALL VOICINGS
ALL CYCLES
C MELODIC MINOR

Chord Family: 4-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd

4 — c.t.

3 → 2nd

1 — c.t.

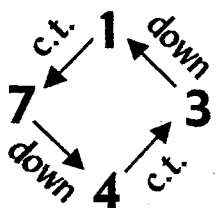
**Functional
Voice-Leading**

7 → 4

4 — 3

3 → 1

1 — 7



—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→

M.S.R.P. $\overline{C C A A} G$

||: C C A A G G E_b E_b D D B B A A F F E_b E_b C C B B G G F F D D :||



Chord Family: 4-part 4ths
Voicing Type: Drop 2

Cycle: 2

Scale: C melodic minor

**Intervallic
Voice-Leading**

3 → 2nd
 7 → 3rd
 4 — c.t.
 1 — c.t.

—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
•	→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	

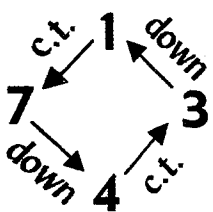
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	

**Functional
Voice-Leading**

3 → 1
 7 → 4
 4 — 3
 1 — 7

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	

→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	



M.S.R.P. C C A A G

	C	C	A	A	G	G	E _b	E _b	D	D	B	B	A	A	F	F	E _b	E _b	C	C	B	B	G	G	F	F	D	D		
	↓						↓								↓					↓										
	1						3								4					7										

Chord Family: 4-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 — c.t.

3 → 2nd

7 → 3rd

1 — c.t.

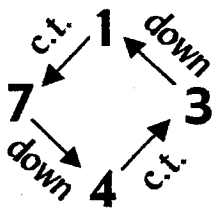
**Functional
Voice-Leading**

4 — 3

3 → 1

7 → 4

1 — 7



→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
•	—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	

M.S.R.P. C C A A G

||: C C A A G G E_b E_b D D B B A A F F E_b E_b C C B B G G F F D D :||

1

3

4

7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 — c.t.

7 → 3rd

3 → 2nd

1 — c.t.

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—	
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
•	—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	

**Functional
Voice-Leading**

4 — 3

7 → 4

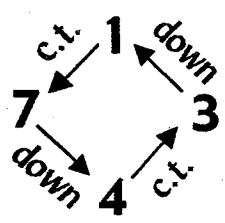
3 → 1

1 — 7

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→

→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—

—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→



M.S.R.P. **CCAAG**

||: **CCAAGGE_bE_b DDBBA AFFE_bE_b CCBBGGFFDD** :||



Chord Family: 4-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd

3 → 2nd

4 — c.t.

1 — c.t.

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
•	E ^b	→	D	—	D	→	B	—	B	→	A	—	A	→	
•	→	F	—	F	→	E ^b	—	E ^b	→	C	—	C	→	B	—
→	C	—	C	→	A	—	A	→	G	—	G	→	E ^b	—	

→	C	—	C	→	A	—	A	→	G	—	G	→	E ^b	—
---	---	---	---	---	---	---	---	---	---	---	---	---	----------------	---

→	F	—	F	→	E ^b	—	E ^b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

**Functional
Voice-Leading**

7 → 4

3 → 1

4 — 3

1 — 7

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

—	E ^b	→	D	—	D	→	B	—	B	→	A	—	A	→
---	----------------	---	---	---	---	---	---	---	---	---	---	---	---	---

—	E ^b	→	D	—	D	→	B	—	B	→	A	—	A	→
---	----------------	---	---	---	---	---	---	---	---	---	---	---	---	---

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

→	C	—	C	→	A	—	A	→	G	—	G	→	E ^b	—
---	---	---	---	---	---	---	---	---	---	---	---	---	----------------	---

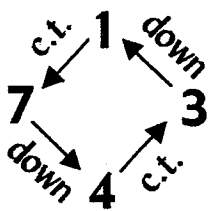
→	F	—	F	→	E ^b	—	E ^b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

→	F	—	F	→	E ^b	—	E ^b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

→	C	—	C	→	A	—	A	→	G	—	G	→	E ^b	—
---	---	---	---	---	---	---	---	---	---	---	---	---	----------------	---

—	E ^b	→	D	—	D	→	B	—	B	→	A	—	A	→
---	----------------	---	---	---	---	---	---	---	---	---	---	---	---	---

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



M.S.R.P. **C C A A G**

||: **C C A A G G E^b E^b D D B B A A F F E^b E^b C C B B G G F F D D** :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

3 → 2nd

4 — c.t.

7 → 3rd

1 — c.t.

—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→	
•	→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—	

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→

**Functional
Voice-Leading**

3 → 1

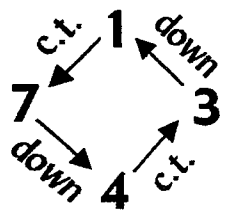
4 — 3

7 → 4

1 — 7

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—

→	C	—	C	→	A	—	A	→	G	—	G	→	E _b	—
—	E _b	→	D	—	D	→	B	—	B	→	A	—	A	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→



M.S.R.P. C C A A G

||: C C A A G G E_b E_b D D B B A A F F E_b E_b C C B B G G F F D D :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd

4 — c.t.

3 — c.t.

1 → 2nd

—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	
•	→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
•	→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	

→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
---	----------------	---	----------------	---	---	---	---	---	---	---	---	---	---	---

—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	•
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	•
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

**Functional
Voice-Leading**

7 → 3

4 — 1

3 — 7

1 → 4

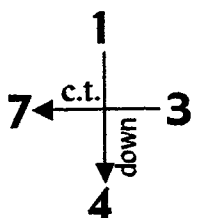
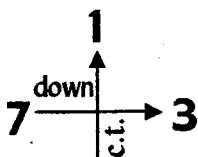
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
•	—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
•	→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	

→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	•
---	----------------	---	----------------	---	---	---	---	---	---	---	---	---	---	---	---

—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	•
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	•
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



M.S.R.P. 1) $\overbrace{C B B A A}$ 2) $\overbrace{E_b E_b D D C}$

1) ||: C B B A A G G F F E_b E_b D D C :|| 2) ||: E_b E_b D D C C B B A A G G F F :||

1

4

3

7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 ↘ 2nd

4 — c.t.

1 ↘ 2nd

→ Eb — Eb	→ D — D	→ C — C	→ B —
• — B	→ A — A	→ G — G	→ F — F
• → F	→ Eb — Eb	→ D — D	→ C —
— C	→ B — B	→ A — A	→ G — G
— B	→ A — A	→ G — G	→ F — F
→ Eb — Eb	→ D — D	→ C — C	→ B —
— C	→ B — B	→ A — A	→ G — G
→ F — F	→ Eb — Eb	→ D — D	→ C —

**Functional
Voice-Leading**

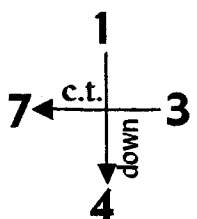
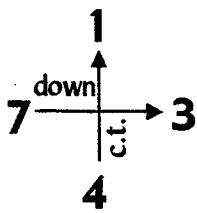
3 — 7

7 ↘ 3

4 — 1

1 ↘ 4

→ F — F	→ Eb — Eb	→ D — D	→ C —
• — C	→ B — B	→ A — A	→ G — G
• — B	→ A — A	→ G — G	→ F — F
→ Eb — Eb	→ D — D	→ C — C	→ B —
— C	→ B — B	→ A — A	→ G — G
→ F — F	→ Eb — Eb	→ D — D	→ C —
→ Eb — Eb	→ D — D	→ C — C	→ B —
— B	→ A — A	→ G — G	→ F — F



M.S.R.P. 1) **C B B A A** 2) **Eb Eb D D C**

1) ||: **C B B A A G G F F Eb Eb D D C**:|| 2) ||: **Eb Eb D D C C B B A A G G F F**:||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 — c.t.

3 — c.t.

7 ↘ 2nd

1 ↘ 2nd

→	F	—	F	→	E ^b	—	E ^b	→	D	—	D	→	C	—	
•	→	E ^b	—	E ^b	→	D	—	D	→	C	—	C	→	B	—
•	—	B	↗	A	—	A	↗	G	—	G	↗	F	—	F	↗
—	C	↘	B	—	B	↘	A	—	A	↘	G	—	G	↘	

—	C	↘	B	—	B	↘	A	—	A	↘	G	—	G	↘
—	B	↗	A	—	A	↗	G	—	G	↗	F	—	F	↗
→	E ^b	—	E ^b	→	D	—	D	→	C	—	C	→	B	—
→	F	—	F	→	E ^b	—	E ^b	→	D	—	D	→	C	—

**Functional
Voice-Leading**

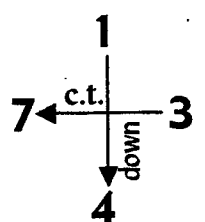
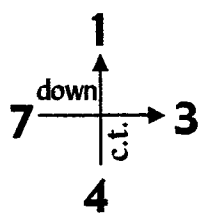
4 — 1

3 — 7

7 ↘ 3

1 ↘ 4

—	B	↗	A	—	A	↗	G	—	G	↗	F	—	F	↗	
•	→	F	—	F	→	E ^b	—	E ^b	→	D	—	D	→	C	—
•	—	C	↘	B	—	B	↘	A	—	A	↘	G	—	G	↘
→	E ^b	—	E ^b	→	D	—	D	→	C	—	C	→	B	—	



→	E ^b	—	E ^b	→	D	—	D	→	C	—	C	→	B	—
—	C	↘	B	—	B	↘	A	—	A	↘	G	—	G	↘
→	F	—	F	→	E ^b	—	E ^b	→	D	—	D	→	C	—
—	B	↗	A	—	A	↗	G	—	G	↗	F	—	F	↗

M.S.R.P. 1) \overline{CBBA} A 2) $\overline{E^bE^bDD}$ C

1) ||: C B B A A G G F F E^b E^b D D C :|| 2) ||: E^b E^b D D C C B B A A G G F F :||



Chord Family: 4-part 4ths
Voicing Type: Drop 2 & 3

Cycle: 4

Scale: C melodic minor

**Intervallic
Voice-Leading**

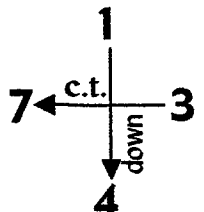
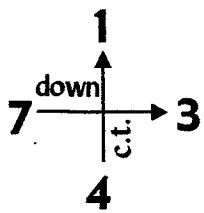
4 — c.t.
 7 ↘ 2nd
 3 — c.t.
 1 ↘ 2nd

→ F — F → Eb — Eb → D — D → C —
• — B → A — A → G — G → F — F →
• → Eb — Eb → D — D → C — C → B —
— C → B — B → A — A → G — G →
→ Eb — Eb → D — D → C — C → B —
— B → A — A → G — G → F — F →
→ F — F → Eb — Eb → D — D → C —

**Functional
Voice-Leading**

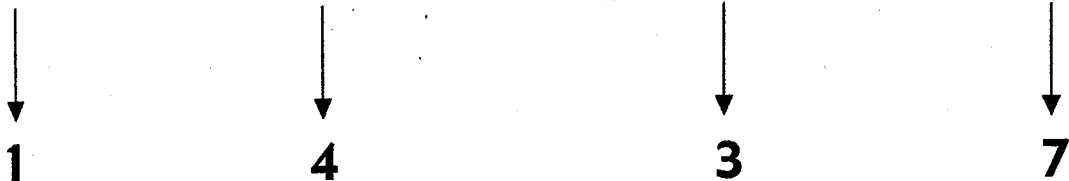
4 — 1
 7 ↘ 3
 3 — 7
 1 ↘ 4

— B → A — A → G — G → F — F →
• — C → B — B → A — A → G — G →
• → F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —
→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
— C → B — B → A — A → G — G →
— B → A — A → G — G → F — F →



M.S.R.P. 1) $\overline{C B B A A}$ 2) $\overline{E_b E_b D D C}$

1) $\parallel : C B B A A G G F F E_b E_b D D C : \parallel$ 2) $\parallel : E_b E_b D D C C B B A A G G F F : \parallel$



Chord Family: 4-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd

3 — c.t.

4 — c.t.

1 → 2nd

—	B	→	A	—	A	→	G	—	G	→	F	—	F	→	
•	→	E_b	—	E_b	→	D	—	D	→	C	—	C	→	B	—
•	→	F	—	F	→	E_b	—	E_b	→	D	—	D	→	C	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	

→	E_b	—	E_b	→	D	—	D	→	C	—	C	→	B	—
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
→	F	—	F	→	E_b	—	E_b	→	D	—	D	→	C	—

**Functional
Voice-Leading**

7 → 3

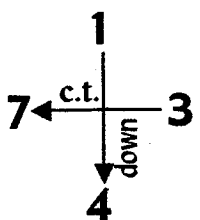
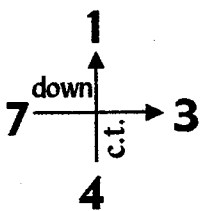
3 — 7

4 — 1

1 → 4

—	C	→	B	—	B	→	A	—	A	→	G	—	G	→	
•	→	F	—	F	→	E_b	—	E_b	→	D	—	D	→	C	—
•	→	B	→	A	—	A	→	G	—	G	→	F	—	F	→
→	E_b	—	E_b	→	D	—	D	→	C	—	C	→	B	—	

→	F	—	F	→	E_b	—	E_b	→	D	—	D	→	C	—
—	C	→	B	—	B	→	A	—	A	→	G	—	G	→
→	E_b	—	E_b	→	D	—	D	→	C	—	C	→	B	—
—	B	→	A	—	A	→	G	—	G	→	F	—	F	→



M.S.R.P. 1) **C B B A A** 2) **E_b E_b D D C**

1) ||: **C B B A A G G F F E_b E_b D D C** || 2) ||: **E_b E_b D D C C B B A A G G F F** ||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

3 — c.t.

4 — c.t.

7 → 2nd

1 → 2nd

→ Eb — Eb	→ D — D	→ C — C	→ B —
• → F — F	→ Eb — Eb	→ D — D	→ C —
• — B → A	— A → G	— G → F	— F →
— C → B	— B → A	— A → G	— G →
— B → A	— A → G	— G → F	— F →
— C → B	— B → A	— A → G	— G →
→ Eb — Eb	→ D — D	→ C — C	→ B —
→ F — F	→ Eb — Eb	→ D — D	→ C —

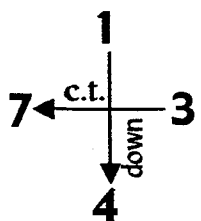
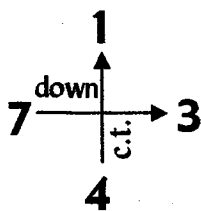
**Functional
Voice-Leading**

3 — 7

4 — 1

7 → 3

1 → 4



M.S.R.P. 1) $\overline{C B B A A}$ 2) $\overline{Eb Eb D D C}$

1) ||: C B B A A G G F F Eb Eb D D C :|| 2) ||: Eb Eb D D C C B B A A G G F F :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 6

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd

4 → 2nd

3 → 2nd

1 — c.t.

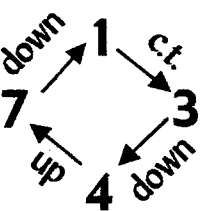
**Functional
Voice-Leading**

7 → 1

4 → 7

3 → 4

1 — 3



• →	B	→	A	—	A	→	G	→	A	→	G	—	G	→
• →	F	→	G	→	F	—	F	→	E _b	→	F	→	E _b	—
• —	E _b	→	D	→	E _b	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	F	→	G	→	F	—	F	→	E _b	→	F	→	E _b	—
—	E _b	→	D	→	E _b	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
—	E _b	→	D	→	E _b	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	F	→	G	→	F	—	F	→	E _b	→	F	→	E _b	—
→	C	—	C	→	B	→	C	→	B	—	B	→	A	→
→	B	→	A	—	A	→	G	→	A	→	G	—	G	→
→	F	→	G	→	F	—	F	→	E _b	→	F	→	E _b	—
—	E _b	→	D	→	E _b	→	D	—	D	→	C	→	D	→

M.S.R.P. \overline{CCBCB}

||: C C B C B B A B A A G A G G F G F F E_b F E_b E_b D E_b D D C D :||

1

7

4

3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd
3 → 2nd
7 → 2nd
1 — c.t.

→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
• — Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
• → B	→ A	— A	→ G	→ A	→ G	— G	→
→ C	— C	→ B	→ C	→ B	— B	→ A	→

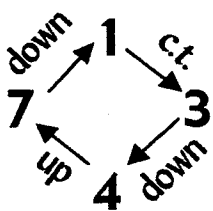
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ B	→ A	— A	→ G	→ A	→ G	— G	→

**Functional
Voice-Leading**

4 → 7
3 → 4
7 → 1
1 — 3

→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ B	→ A	— A	→ G	→ A	→ G	— G	→
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—

→ B	→ A	— A	→ G	→ A	→ G	— G	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ C	— C	→ B	→ C	→ B	— B	→ A	→
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→



M.S.R.P. CCBCB

||: C C B C B B A B A A G A G G F G F F Eb F Eb Eb D Eb D D C D :||

↓	↓	↓	↓
1	7	4	3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 ↗ 2nd

7 ↘ 2nd

3 ↘ 2nd

1 — c.t.

→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
• → B	→ A	— A	→ G	→ A	→ G	— G	→
• — Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ C	— C	→ B	→ C	→ B	— B	→ A	→

**Functional
Voice-Leading**

4 ↗ 7

7 ↘ 1

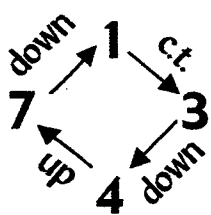
3 ↘ 4

1 — 3

— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ B	→ A	— A	→ G	→ A	→ G	— G	→

→ C	— C	→ B	→ C	→ B	— B	→ A	→
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ B	→ A	— A	→ G	→ A	→ G	— G	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—

→ B	→ A	— A	→ G	→ A	→ G	— G	→
→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→



M.S.R.P. **CCBCB**

||: C C B C B B A B A A G A G G F G F F Eb F Eb Eb D Eb D D C D :||

1

7

4

3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd
3 → 2nd
4 → 2nd
1 — c.t.

→ B	→ A	— A	→ G	→ A	→ G	— G	→
• — Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
• → F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ C	— C	→ B	→ C	→ B	— B	→ A	→

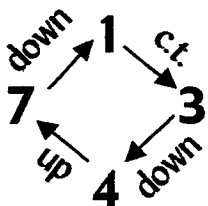
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ C	— C	→ B	→ C	→ B	— B	→ A	→
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ B	→ A	— A	→ G	→ A	→ G	— G	→

**Functional
Voice-Leading**

7 → 1
3 → 4
4 → 7
1 — 3

— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ B	→ A	— A	→ G	→ A	→ G	— G	→
→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—

→ C	— C	→ B	→ C	→ B	— B	→ A	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
→ B	→ A	— A	→ G	→ A	→ G	— G	→
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→



M.S.R.P. **CCBCB**

||:CCBCBBAAGAGGFGEbFEbEbDEbDDCD:||

↓	↓	↓	↓
1	7	4	3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.

4 → 3rd

3 — c.t.

1 → 2nd

→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—	
•	—	F	→	A	—	A	→	B	—	B	→	D	—	D	→
•	→	E _b	—	E _b	→	G	—	G	→	A	—	A	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→	

—	F	→	A	—	A	→	B	—	B	→	D	—	D	→
→	E _b	—	E _b	→	G	—	G	→	A	—	A	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—

**Functional
Voice-Leading**

7 — 1

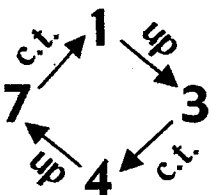
4 → 7

3 — 4

1 → 3

→	E _b	—	E _b	→	G	—	G	→	A	—	A	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—
—	F	→	A	—	A	→	B	—	B	→	D	—	D	→

—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—
—	F	→	A	—	A	→	B	—	B	→	D	—	D	→
→	E _b	—	E _b	→	G	—	G	→	A	—	A	→	C	—



M.S.R.P. **C D D F F**

||: **C D D F F G G B B C C E_b E_b F F A A B B D D E_b E_b G G A A C** :||

1

7

4

3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 — c.t.

4 → 3rd

1 → 2nd

→ Eb — Eb	→ G — G	→ A — A	→ C —
• → B — B	→ C — C	→ Eb — Eb	→ F —
• — F → A	— A → B	— B → D	— D →
— C → D	— D → F	— F → G	— G →

— C → D	— D → F	— F → G	— G →
— F → A	— A → B	— B → D	— D →
→ Eb — Eb	→ G — G	→ A — A	→ C —
→ B — B	→ C — C	→ Eb — Eb	→ F —

**Functional
Voice-Leading**

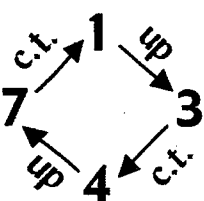
3 — 4

7 — 1

4 → 7

1 → 3

→ B — B	→ C — C	→ Eb — Eb	→ F —
→ Eb — Eb	→ G — G	→ A — A	→ C —
— C → D	— D → F	— F → G	— G →
— F → A	— A → B	— B → D	— D →
— F → A	— A → B	— B → D	— D →
→ B — B	→ C — C	→ Eb — Eb	→ F —
→ Eb — Eb	→ G — G	→ A — A	→ C —



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C Eb Eb F F A A B B D D Eb Eb G G A A C :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 3rd

3 — c.t.

7 — c.t.

1 → 2nd

—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗	
•	↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
•	↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗	

↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—

**Functional
Voice-Leading**

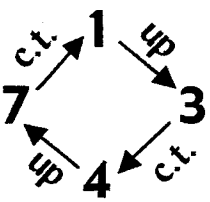
4 → 7

3 — 4

7 — 1

1 → 3

—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C E_b E_b F F A A B B D D E_b E_b G G A A C :||



Chord Family: 4-part 4ths
Voicing Type: Drop 2 & 3

Cycle: 7

Scale: C melodic minor

**Intervallic
Voice-Leading**

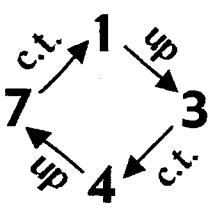
4 → 3rd
 7 — c.t.
 3 — c.t.
 1 → 2nd

—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗	
•	↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
•	↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗	

**Functional
Voice-Leading**

4 → 7
 7 — 1
 3 — 4
 1 → 3

↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
↗	B	—	B	↗	C	—	C	↗	E _b	—	E _b	↗	F	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
—	F	↗	A	—	A	↗	B	—	B	↗	D	—	D	↗
↗	E _b	—	E _b	↗	G	—	G	↗	A	—	A	↗	C	—



M.S.R.P. C D D F F

||: C D D F F G G B C C E_b E_b F F A A B B D D E_b E_b G G A A C :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 2 & 4

Intervallic

Voice-Leading

7 — c.t.

3 — c.t.

4 → 3rd

1 → 2nd

→ B — B → C — C → Eb — Eb → F —
→ Eb — Eb → G — G → A — A → C —
— F → A — A → B — B → D — D →
— C → D — D → F — F → G — G →
— F → A — A → B — B → D — D →
— C → D — D → F — F → G — G →
→ Eb — Eb → G — G → A — A → C —
→ B — B → C — C → Eb — Eb → F —
→ Eb — Eb → G — G → A — A → C —
→ B — B → C — C → Eb — Eb → F —
— C → D — D → F — F → G — G →
— F → A — A → B — B → D — D →
→ B — B → C — C → Eb — Eb → F —
→ Eb — Eb → G — G → A — A → C —

Functional

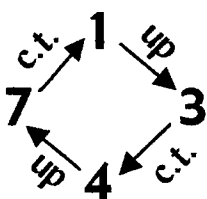
Voice-Leading

7 — 1

3 — 4

4 → 7

1 → 3



M.S.R.P. \overline{CDDFF}

||: C D D F F G G B C C Eb Eb F F A A B B D D Eb Eb G G A A C :||

1

7

4

3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

3 — c.t.

4 → 3rd

7 — c.t.

1 → 2nd

→ Eb — Eb	→ G — G	→ A — A	→ C —
• — F → A	— A → B	— B → D	— D →
• → B — B	→ C — C	→ Eb — Eb	→ F —
— C → D	— D → F	— F → G	— G →

**Functional
Voice-Leading**

3 — 4

4 → 7

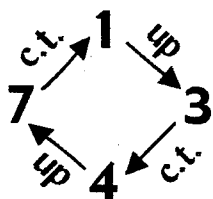
7 — 1

1 → 3

— C → D	— D → F	— F → G	— G →
→ Eb — Eb	→ G — G	→ A — A	→ C —
— F → A	— A → B	— B → D	— D →
→ B — B	→ C — C	→ Eb — Eb	→ F —

→ B — B	→ C — C	→ Eb — Eb	→ F —
— C → D	— D → F	— F → G	— G →
→ Eb — Eb	→ G — G	→ A — A	→ C —
— F → A	— A → B	— B → D	— D →

— F → A	— A → B	— B → D	— D →
→ B — B	→ C — C	→ Eb — Eb	→ F —
— C → D	— D → F	— F → G	— G →
→ Eb — Eb	→ G — G	→ A — A	→ C —



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C Eb Eb F F A A B B D D Eb Eb G G A A C :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.

4 → 2nd

3 → 2nd

1 — c.t.

→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—	
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
•	—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	

**Functional
Voice-Leading**

7 — 3

4 → 1

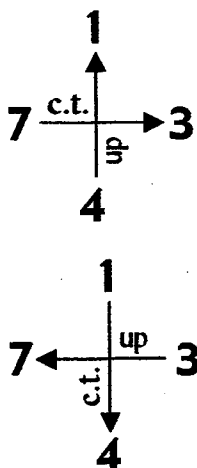
3 → 7

1 — 4

—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
—	F	→	G	—	G	→	A	—	A	→	B	—	B	→

→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—	
•	→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→	

—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—



M.S.R.P. 1) C C D

2) E_b F F

1) ||: C C D D E_b E_b F F G G A A B B :|| 2) ||: E_b F F G G A A B B C C D D E_b :||

1

4

3

7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 → 2nd

7 — c.t.

4 → 2nd

1 — c.t.

— Eb	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗	
↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	Eb	—
—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
↗	C	—	C	↗	D	—	D	↗	Eb	—	Eb	↗	F	—

**Functional
Voice-Leading**

3 → 7

7 — 3

4 → 1

1 — 4

↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	Eb	—
—	Eb	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
↗	C	—	C	↗	D	—	D	↗	Eb	—	Eb	↗	F	—
—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗

—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	Eb	—
↗	C	—	C	↗	D	—	D	↗	Eb	—	Eb	↗	F	—
—	Eb	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗

↗	C	—	C	↗	D	—	D	↗	Eb	—	Eb	↗	F	—
—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
—	Eb	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	Eb	—

M.S.R.P. 1) \overline{CCD}

2) \overline{EbFF}

1) ||: C C D D Eb Eb F F G G A A B B :|| 2) ||: Eb F F G G A A B B C C D D Eb :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd

3 → 2nd

7 — c.t.

1 — c.t.

—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗	
•	—	E _b	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—
↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—	

↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—
↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
—	E _b	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗

**Functional
Voice-Leading**

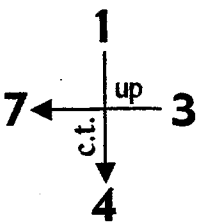
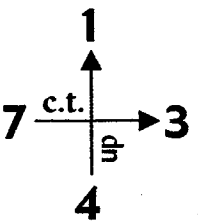
4 → 1

3 → 7

7 — 3

1 — 4

↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—	
•	—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
•	↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
—	E _b	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗	



—	E _b	↗	F	—	F	↗	G	—	G	↗	A	—	A	↗
↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
—	F	↗	G	—	G	↗	A	—	A	↗	B	—	B	↗
↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—

M.S.R.P. 1) $\overline{C C D}$

2) $\overline{E_b F F}$

1) ||: C C D D E_b E_b F F G G A A B B :|| 2) ||: E_b F F G G A A B B C C D D E_b :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 2nd

7 — c.t.

3 → 2nd

1 — c.t.

	— F → G	— G → A	— A → B	— B →
•	→ B — B	→ C — C	→ D — D	→ Eb —
•	— Eb → F	— F → G	— G → A	— A →
	→ C — C	→ D — D	→ Eb — Eb	→ F —
	→ C — C	→ D — D	→ Eb — Eb	→ F —
	— Eb → F	— F → G	— G → A	— A →
	→ B — B	→ C — C	→ D — D	→ Eb —
	— F → G	— G → A	— A → B	— B →

**Functional
Voice-Leading**

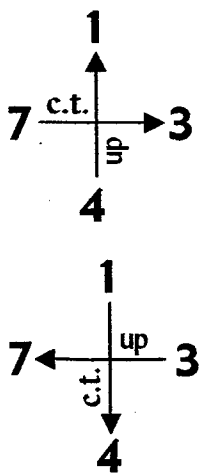
4 → 1

7 — 3

3 → 7

1 — 4

	→ B — B	→ C — C	→ D — D	→ Eb —
•	→ C — C	→ D — D	→ Eb — Eb	→ F —
•	— F → G	— G → A	— A → B	— B →
	— Eb → F	— F → G	— G → A	— A →
	— Eb → F	— F → G	— G → A	— A →
	— F → G	— G → A	— A → B	— B →
	→ C — C	→ D — D	→ Eb — Eb	→ F —
	→ B — B	→ C — C	→ D — D	→ Eb —



M.S.R.P. 1) \overline{CCD}

2) \overline{EbFF}

1) ||: C C D D Eb Eb F F G G A A B B :|| 2) ||: Eb F F G G A A B B C C D D Eb :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 — c.t.

3 → 2nd

4 → 2nd

1 — c.t.

→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—	
•	—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	

**Functional
Voice-Leading**

7 — 3

3 → 7

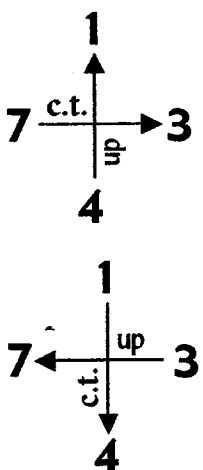
4 → 1

1 — 4

—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
—	F	→	G	—	G	→	A	—	A	→	B	—	B	→

→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	
•	—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
•	→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→	

—	F	→	G	—	G	→	A	—	A	→	B	—	B	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
—	E _b	→	F	—	F	→	G	—	G	→	A	—	A	→
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—



M.S.R.P. 1) $\overline{C C D}$

2) $\overline{E_b F F}$

1) ||: C C D D E_b E_b F F G G A A B B :|| 2) ||: E_b F F G G A A B B C C D D E_b :||

1

4

3

7

Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 5

Scale: C melodic minor

**Intervallic
 Voice-Leading**

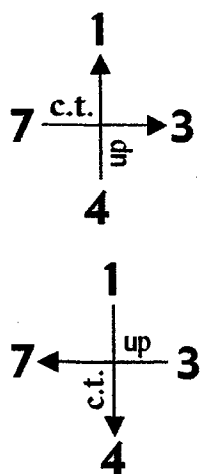
3 → 2nd
 4 → 2nd
 7 — c.t.
 1 — c.t.

— Eb → F	— F → G	— G → A	— A →
• — F → G	— G → A	— A → B	— B →
• → B — B	→ C — C	→ D — D	→ Eb —
→ C — C	→ D — D	→ Eb — Eb	→ F —
→ B — B	→ C — C	→ D — D	→ Eb —
→ C — C	→ D — D	→ Eb — Eb	→ F — •
— Eb → F	— F → G	— G → A	— A → •
— F → G	— G → A	— A → B	— B →

**Functional
 Voice-Leading**

3 → 7
 4 → 1
 7 — 3
 1 — 4

— F → G	— G → A	— A → B	— B →
• → B — B	→ C — C	→ D — D	→ Eb —
• → C — C	→ D — D	→ Eb — Eb	→ F —
— Eb → F	— F → G	— G → A	— A →
→ C — C	→ D — D	→ Eb — Eb	→ F —
— Eb → F	— F → G	— G → A	— A → •
— F → G	— G → A	— A → B	— B → •
→ B — B	→ C — C	→ D — D	→ Eb —



M.S.R.P. 1) \overline{CCD} 2) \overline{EbFF}

1) ||: C C D D Eb Eb F F G G A A B B :|| 2) ||: Eb F F G G A A B B C C D D Eb :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd
4 → 2nd
3 — c.t.
1 → 2nd

→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	
•	→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
•	→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→	

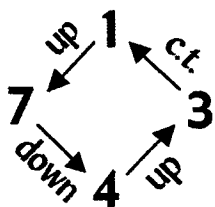
**Functional
Voice-Leading**

7 → 4
4 → 3
3 — 1
1 → 7

—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→

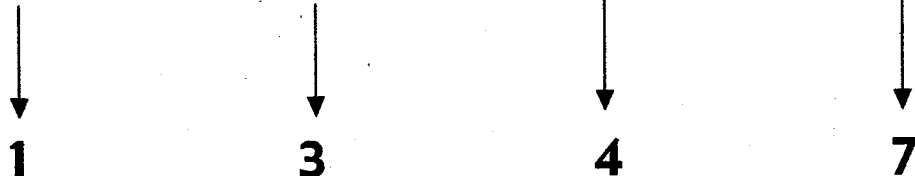
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→

→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. $\overline{C D C D D}$

||: C D C D D E_b D E_b E_b F E_b F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

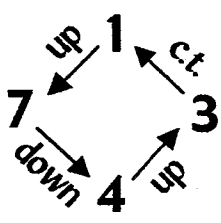
3 — c.t.
7 ↘ 2nd
4 ↘ 2nd
1 ↘ 2nd

→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→	
•	→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
•	→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→	
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→	
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—	
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—	

**Functional
Voice-Leading**

3 — 1
7 ↘ 4
4 ↘ 3
1 ↘ 7

→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. CDCDD

||: C D C D D E_b D E_b E_b F E_b F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd

3 — c.t.

7 → 2nd

1 → 2nd

→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
•	→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
•	→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→	

→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—

**Functional
Voice-Leading**

4 → 3

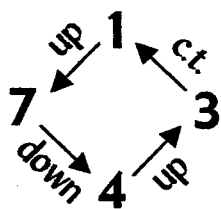
3 — 1

7 → 4

1 → 7

—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→

→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. $\overline{C D C D D}$

||: C D C D D E_b D E_b E_b F E_b F F G F G G A G A A B A B B C B C :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 2nd

7 → 2nd

3 — c.t.

1 → 2nd

→	F	→	G	—	G	→	A	→	G	→	A	—	A	→	
•	→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
•	→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→	

**Functional
Voice-Leading**

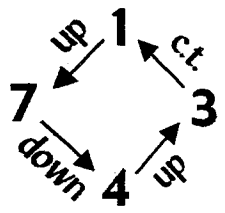
4 → 3

7 → 4

3 — 1

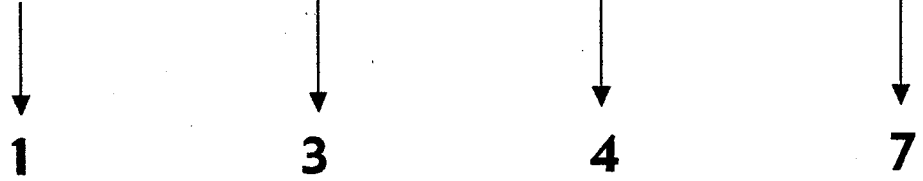
1 → 7

→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
→	F	→	G	—	G	→	A	→	G	→	A	—	A	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. **CDCDD**

||: C D C D D E_b D E_b E_b F E_b F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C melodic minor

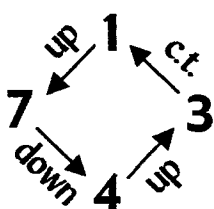
Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd
3 — c.t.
4 → 2nd
1 → 2nd

**Functional
Voice-Leading**

7 → 4
3 — 1
4 → 3
1 → 7



→ B	→ A	→ B	— B	→ C	→ B	→ C	—
• → Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
• → F	→ G	— G	→ A	→ G	→ A	— A	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
→ B	→ A	→ B	— B	→ C	→ B	→ C	—
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ F	→ G	— G	→ A	→ G	→ A	— A	→
→ F	→ G	— G	→ A	→ G	→ A	— A	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	→
→ B	→ A	→ B	— B	→ C	→ B	→ C	—

M.S.R.P. **CDCDD**

||: C D C D D Eb D Eb Eb F Eb F F G F G G A G A A B A B B C B C :||



Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 3

Scale: C melodic minor

**Intervallic
 Voice-Leading**

3 — c.t.
 4 → 2nd
 7 ↘ 2nd
 1 → 2nd

→ Eb — Eb	→ F → Eb	→ F — F	→ G —
• → F → G	— G → A	→ G → A	— A →
• → B → A	→ B — B	→ C → B	→ C —
— C → D	→ C → D	— D → Eb	→ D →

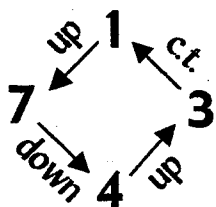
**Functional
 Voice-Leading**

3 — 1
 4 → 3
 7 ↘ 4
 1 → 7

→ F → G	— G → A	→ G → A	— A →
→ B → A	→ B — B	→ C → B	→ C —
— C → D	→ C → D	— D → Eb	→ D →
→ Eb — Eb	→ F → Eb	→ F — F	→ G —

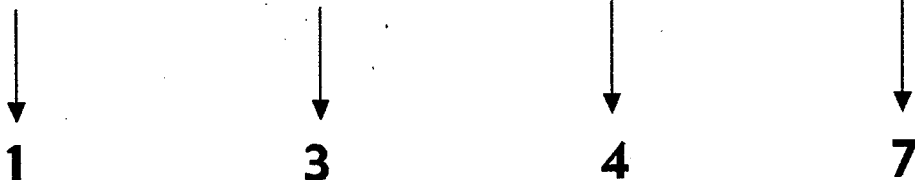
→ B → A	→ B — B	→ C → B	→ C —
— C → D	→ C → D	— D → Eb	→ D →
→ Eb — Eb	→ F → Eb	→ F — F	→ G →
→ F → G	— G → A	→ G → A	— A →

— C → D	→ C → D	— D → Eb	→ D →
→ Eb — Eb	→ F → Eb	→ F — F	→ G →
→ F → G	— G → A	→ G → A	— A →
→ B → A	→ B — B	→ C → B	→ C —



M.S.R.P. C D C D D

||: C D C D D Eb D Eb Eb F Eb F F G F G G A G A A B A B B C B C :||



4-PART 4THS
ALL VOICINGS
ALL CYCLES
C HARMONIC MINOR

Chord Family: 4-part 4ths
Voicing Type: Drop 2

Cycle: 2

Scale: C harmonic minor

**Intervallic
Voice-Leading**

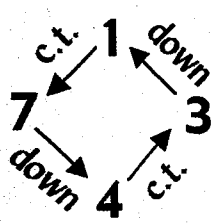
3 → 2nd
 7 → 3rd
 4 — c.t.
 1 — c.t.

—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→	
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
•	→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
	→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—

**Functional
Voice-Leading**

3 → 1
 7 → 4
 4 — 3
 1 — 7

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→



M.S.R.P. $\overline{CC}A_bA_b G$

:	C	C	A _b	A _b	G	G	E _b	E _b	D	D	B	B	A _b	A _b	F	F	E _b	E _b	C	C	B	B	G	G	F	F	D	D	:
	↓							↓							↓				↓										
	1							3							4				7										

Chord Family: 4-part 4ths

Cycle: 2

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 — c.t.

3 → 2nd

7 → 3rd

1 — c.t.

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
•	—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b →
•	—	B	→	G	—	G	→	F	—	F	→	D	—	D →
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b →	

**Functional
Voice-Leading**

4 — 3

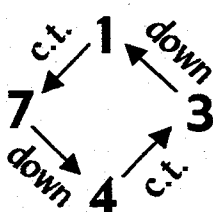
3 → 1

7 → 4

1 — 7

→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b →	
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—

—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b →	
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
—	B	→	G	—	G	→	F	—	F	→	D	—	D	→



M.S.R.P. \overline{CCAbAb} G

||: **CCAbAb GGE_bE_b DDBB A_bA_b FF_bE_b CCB_bGGFFDD** :||

↓		↓		↓		↓
1		3		4		7

Chord Family: 4-part 4ths

Cycle: 2

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd

3 → 2nd

4 — c.t.

1 — c.t.

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→	
•	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→	
•	→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—	

→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	----------------	---

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

**Functional
Voice-Leading**

7 → 4

3 → 1

4 — 3

1 — 7

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→

—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→
---	----------------	---	---	---	---	---	---	---	---	---	----------------	---	----------------	---

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	----------------	---

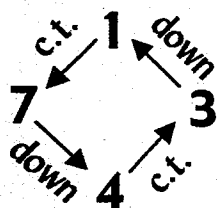
→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

→	F	—	F	→	E _b	—	E _b	→	C	—	C	→	B	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	---	---

→	C	—	C	→	A _b	—	A _b	→	G	—	G	→	E _b	—
---	---	---	---	---	----------------	---	----------------	---	---	---	---	---	----------------	---

—	E _b	→	D	—	D	→	B	—	B	→	A _b	—	A _b	→
---	----------------	---	---	---	---	---	---	---	---	---	----------------	---	----------------	---

—	B	→	G	—	G	→	F	—	F	→	D	—	D	→
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---



M.S.R.P. $\overline{CCAbAb} G$

||: **CCAbAb GGE_bE_b DDBB A_bAb FFE_bE_b CCBB GGFFDD** :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

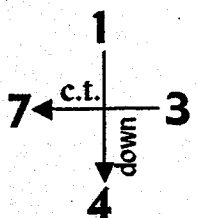
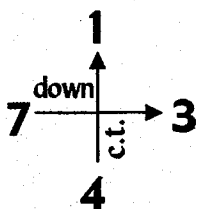
7 → 2nd
4 — c.t.
3 — c.t.
1 → 2nd

—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→	
•	→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—
•	→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	
→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	
—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→	
→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—	

**Functional
Voice-Leading**

7 → 3
4 — 1
3 — 7
1 → 4

—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	
•	—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→
•	→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—
→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—	
→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—	
→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—	
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	
—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→	



M.S.R.P. 1) C B B Ab Ab 2) Eb Eb D D C

1) ||: C B B Ab Ab G G F F Eb Eb D D C :| 2) ||: Eb Eb D D C C B B Ab Ab G G F F :||



Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 → 2nd

4 — c.t.

1 → 2nd

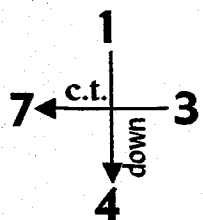
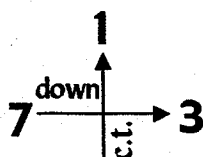
**Functional
Voice-Leading**

3 — 7

7 → 3

4 — 1

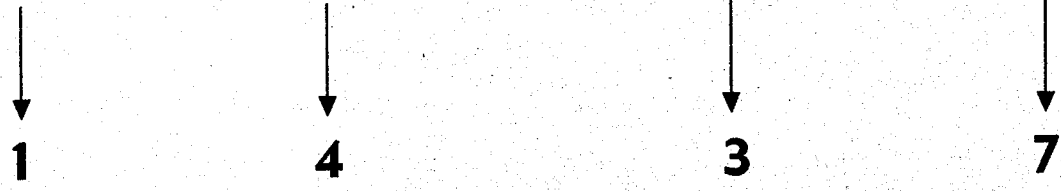
1 → 4



→ Eb — Eb → D — D → C — C → B —	
• — B → Ab — Ab → G — G → F — F →	
• → F — F → Eb — Eb → D — D → C —	
— C → B — B → Ab — Ab → G — G →	
— B → Ab — Ab → G — G → F — F →	
→ Eb — Eb → D — D → C — C → B —	•
— C → B — B → Ab — Ab → G — G →	•
→ F — F → Eb — Eb → D — D → C —	
→ F — F → Eb — Eb → D — D → C —	
• — C → B — B → Ab — Ab → G — G →	
• — B → Ab — Ab → G — G → F — F →	
→ Eb — Eb → D — D → C — C → B —	
— C → B — B → Ab — Ab → G — G →	
→ F — F → Eb — Eb → D — D → C —	
→ Eb — Eb → D — D → C — C → B —	
— B → Ab — Ab → G — G → F — F →	

M.S.R.P. 1) $\overbrace{C B B A b A b}$ 2) $\overbrace{E b E b D D C}$

1) ||: C B B A b A b G G F F E b E b D D C :|| 2) ||: E b E b D D C C B B A b A b G G F F :||



Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 — c.t.

3 — c.t.

7 → 2nd

1 → 2nd

→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—	
•	→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
•	—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→
—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→	

—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→
—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—

**Functional
Voice-Leading**

4 — 1

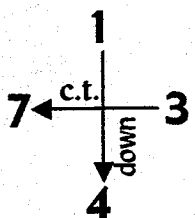
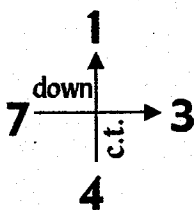
3 — 7

7 → 3

1 → 4

—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→	
•	→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
•	—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	

→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→
→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→



M.S.R.P. 1) C B B A_b A_b 2) E_b E_b D D C

1) ||: C B B A_b A_b G G F F E_b E_b D D C :|| 2) ||: E_b E_b D D C C B B A_b A_b G G F F :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

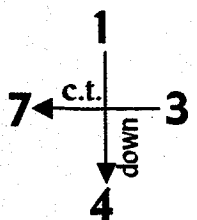
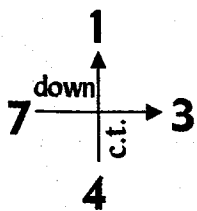
4 — c.t.
7 → 2nd
3 — c.t.
1 → 2nd

→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—	
•	—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→
•	→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—
—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→	
—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→	
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	
—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→	
→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—	

**Functional
Voice-Leading**

4 — 1
7 → 3
3 — 7
1 → 4

—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→	
•	—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→
•	→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	
→	E _b	—	E _b	→	D	—	D	→	C	—	C	→	B	—	
→	F	—	F	→	E _b	—	E _b	→	D	—	D	→	C	—	
—	C	→	B	—	B	→	A _b	—	A _b	→	G	—	G	→	
—	B	→	A _b	—	A _b	→	G	—	G	→	F	—	F	→	



M.S.R.P. 1) C B B A_b A_b 2) E_b E_b D D C

1) ||: C B B A_b A_b G G F F E_b E_b D D C :|| 2) ||: E_b E_b D D C C B B A_b A_b G G F F :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd

3 — c.t.

4 — c.t.

1 → 2nd

—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→	
•	→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—
•	→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	

→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—
—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→
→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—

**Functional
Voice-Leading**

7 → 3

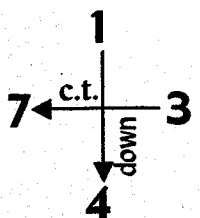
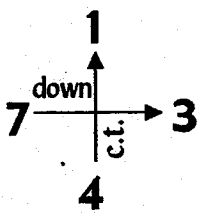
3 — 7

4 — 1

1 → 4

—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→	
•	→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—
•	—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→
→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—	

→	F	—	F	→	Eb	—	Eb	→	D	—	D	→	C	—
—	C	→	B	—	B	→	Ab	—	Ab	→	G	—	G	→
→	Eb	—	Eb	→	D	—	D	→	C	—	C	→	B	—
—	B	→	Ab	—	Ab	→	G	—	G	→	F	—	F	→



M.S.R.P. 1) C B B Ab Ab 2) Eb Eb D D C

1) ||: C B B Ab Ab G G F F Eb Eb D D C || 2) ||: Eb Eb D D C C B B Ab Ab G G F F ||



Chord Family: 4-part 4ths

Cycle: 4

Scale: C harmonic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

3 — c.t.

4 — c.t.

7 → 2nd

1 → 2nd

→ Eb — Eb → D — D → C — C → B —
• → F — F → Eb — Eb → D — D → C —
• — B → Ab — Ab → G — G → F — F →
— C → B — B → Ab — Ab → G — G →
— B → Ab — Ab → G — G → F — F →
— C → B — B → Ab — Ab → G — G →

**Functional
Voice-Leading**

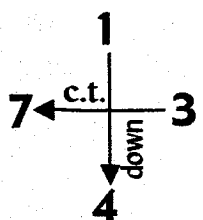
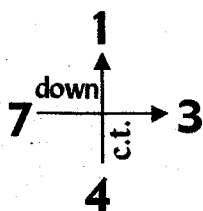
3 — 7

4 — 1

7 → 3

1 → 4

→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
→ F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —



→ F — F → Eb — Eb → D — D → C —
• — B → Ab — Ab → G — G → F — F →
• — C → B — B → Ab — Ab → G — G →
→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —
→ F — F → Eb — Eb → D — D → C —
→ Eb — Eb → D — D → C — C → B —

M.S.R.P. 1) $\overline{C B B A^b A^b}$ 2) $\overline{E^b E^b D D C}$

1) ||: C B B A^b A^b G G F F E^b E^b D D C :|| 2) ||: E^b E^b D D C C B B A^b A^b G G F F :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths
Voicing Type: 4-way close

Cycle: 6

Scale: C harmonic minor

**Intervallic
Voice-Leading**

7 → 2nd
 4 → 2nd
 3 → 2nd
 1 — c.t.

→ B	→ Ab	— Ab	→ G	→ Ab	→ G	— G	→
• → F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
• — Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ C	— C	→ B	→ C	→ B	— B	→ Ab	→

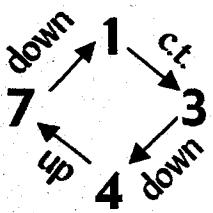
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ C	— C	→ B	→ C	→ B	— B	→ Ab	→
→ B	→ Ab	— Ab	→ G	→ Ab	→ G	— G	→

**Functional
Voice-Leading**

7 → 1
 4 → 7
 3 → 4
 1 — 3

— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→
→ C	— C	→ B	→ C	→ B	— B	→ Ab	→
→ B	→ Ab	— Ab	→ G	→ Ab	→ G	— G	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—

→ C	— C	→ B	→ C	→ B	— B	→ Ab	→
→ B	→ Ab	— Ab	→ G	→ Ab	→ G	— G	→
→ F	→ G	→ F	— F	→ Eb	→ F	→ Eb	—
— Eb	→ D	→ Eb	→ D	— D	→ C	→ D	→



M.S.R.P. **CCBCB**

: C	C	B	C	B	B	Ab	B	Ab	Ab	G	Ab	G	G	F	G	F	F	Eb	F	Eb	Eb	D	Eb	D	D	C	D	:	
↓																													
1																													

Chord Family: 4-part 4ths

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 → 2nd

7 → 2nd

4 → 2nd

1 — c.t.

— Eb →	D →	Eb →	D —	D →	C →	D →
• → B →	Ab —	Ab →	G →	Ab →	G —	G →
• → F →	G →	F —	F →	Eb →	F →	Eb —
→ C —	C →	B →	C →	B —	B →	Ab →

→ C —	C →	B →	C →	B —	B →	Ab →
-------	-----	-----	-----	-----	-----	------

→ F →	G →	F —	F →	Eb →	F →	Eb —
-------	-----	-----	-----	------	-----	------

**Functional
Voice-Leading**

3 → 4

7 → 1

4 → 7

1 — 3

— Eb →	D →	Eb →	D —	D →	C →	D →
--------	-----	------	-----	-----	-----	-----

→ B →	Ab —	Ab →	G →	Ab →	G —	G →
-------	------	------	-----	------	-----	-----

→ B →	Ab —	Ab →	G →	Ab →	G —	G →
-------	------	------	-----	------	-----	-----

— Eb →	D →	Eb →	D —	D →	C →	D →
--------	-----	------	-----	-----	-----	-----

→ C —	C →	B →	C →	B —	B →	Ab →
-------	-----	-----	-----	-----	-----	------

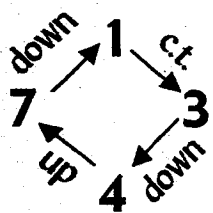
→ F →	G →	F —	F →	Eb →	F →	Eb —
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→ F →	G →	F —	F →	Eb →	F →	Eb —
-------	-----	-----	-----	------	-----	------

→ C —	C →	B →	C →	B —	B →	Ab →
-------	-----	-----	-----	-----	-----	------

→ B →	Ab —	Ab →	G →	Ab →	G —	G →
-------	------	------	-----	------	-----	-----

— Eb →	D →	Eb →	D —	D →	C →	D →
--------	-----	------	-----	-----	-----	-----



M.S.R.P. **C C B C B**

||: **C C B C B B Ab B Ab Ab G Ab G G F G F F Eb F Eb Eb D Eb D D C D** :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 3

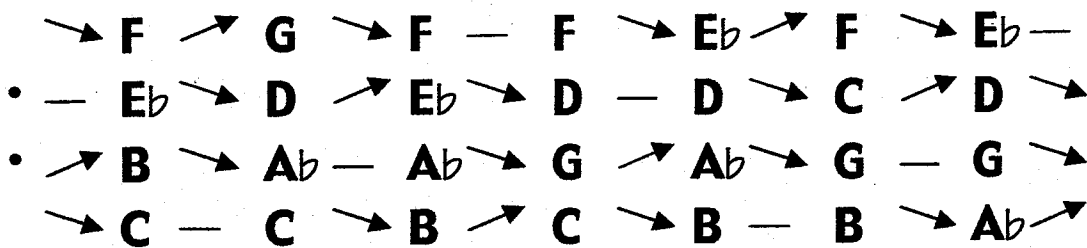
Intervallic Voice-Leading

4 → 2nd

3 → 2nd

7 → 2nd

1 — c.t.



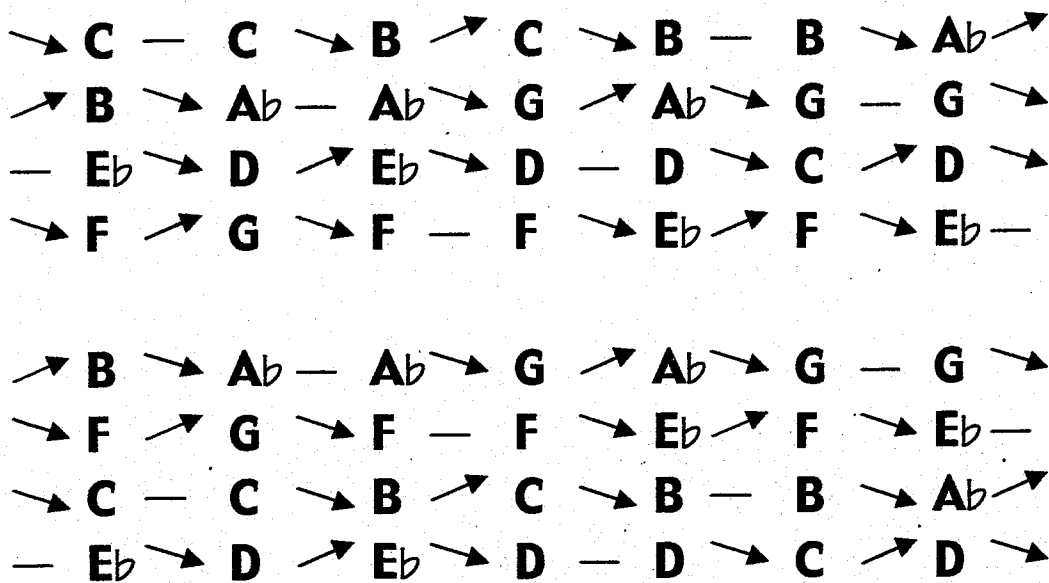
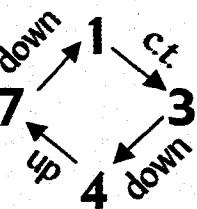
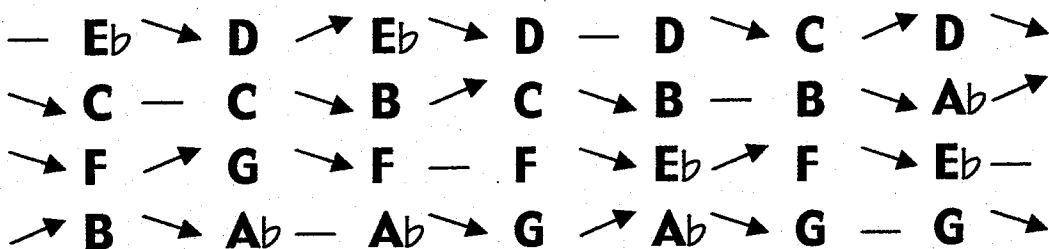
Functional Voice-Leading

4 → 7

3 → 4

7 → 1

1 — 3



M.S.R.P. **C C B C B**

||: C C B C B B Ab B Ab Ab G Ab G G F G F F Eb F Eb Eb D Eb D D C D :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 2nd

7 → 2nd

3 → 2nd

1 — c.t.

→	F	→	G	→	F	—	F	→	E _b	→	F	→	E _b	—	
•	→	B	→	A _b	—	A _b	→	G	→	A _b	→	G	—	G	→
•	—	E _b	→	D	→	E _b	→	D	—	D	→	C	→	D	→
→	C	—	C	→	B	→	C	→	B	—	B	→	A _b	→	

— E_b → D → E_b → D — D → C → D →

→ F → G → F — F → E_b → F → E_b —

→ C — C → B → C → B — B → A_b →

→ B → A_b — A_b → G → A_b → G — G →

**Functional
Voice-Leading**

4 → 7

7 → 1

3 → 4

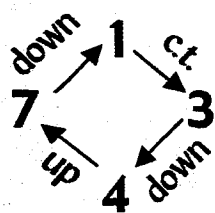
1 — 3

→ C — C → B → C → B — B → A_b →

— E_b → D → E_b → D — D → C → D →

→ B → A_b — A_b → G → A_b → G — G →

→ F → G → F — F → E_b → F → E_b —



→ B → A_b — A_b → G → A_b → G — G →

→ C — C → B → C → B — B → A_b →

→ F → G → F — F → E_b → F → E_b —

— E_b → D → E_b → D — D → C → D →

M.S.R.P. **CCBCB**

||: **C C B C B B A_b B A_b A_b G A_b G G F G F F E_b F E_b E_b D E_b D D C D** :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd
3 → 2nd
4 → 2nd
1 — c.t.

→ B →	Ab —	Ab →	G →	Ab →	G —	G →
• — Eb →	D →	Eb →	D —	D →	C →	D →
• → F →	G →	F —	F →	Eb →	F →	Eb —
→ C —	C →	B →	C →	B —	B →	Ab →

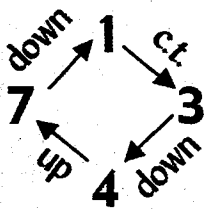
**Functional
Voice-Leading**

7 → 1
3 → 4
4 → 7
1 — 3

→ F →	G →	F —	F →	Eb →	F →	Eb —
→ C —	C →	B →	C →	B —	B →	Ab →
— Eb →	D →	Eb →	D —	D →	C →	D →
→ B →	Ab —	Ab →	G →	Ab →	G —	G →

— Eb →	D →	Eb →	D —	D →	C →	D →
→ B →	Ab —	Ab →	G →	Ab →	G —	G →
→ C —	C →	B →	C →	B —	B →	Ab →
→ F →	G →	F —	F →	Eb →	F →	Eb —

→ C —	C →	B →	C →	B —	B →	Ab →
→ F →	G →	F —	F →	Eb →	F →	Eb —
→ B →	Ab —	Ab →	G →	Ab →	G —	G →
— Eb →	D →	Eb →	D —	D →	C →	D →



M.S.R.P. $\overline{C C B C B}$

||: C C B C B B Ab B Ab Ab G Ab G G F G F F Eb F Eb Eb D Eb D D C D :||

↓ ↓ ↓ ↓
1 7 4 3

Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 6

Scale: C harmonic minor

**Intervallic
 Voice-Leading**

3 → 2nd
 4 → 2nd
 7 → 2nd
 1 — c.t.

— Eb	→	D	→	Eb	→	D	—	D	→	C	→	D	→	
• →	F	→	G	→	F	—	F	→	Eb	→	F	→	Eb	—
• →	B	→	Ab	—	Ab	→	G	→	Ab	→	G	—	G	→
→	C	—	C	→	B	→	C	→	B	—	B	→	Ab	→

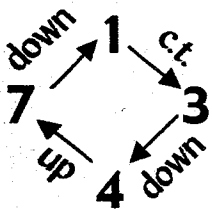
**Functional
 Voice-Leading**

3 → 4
 4 → 7
 7 → 1
 1 — 3

→	C	—	C	→	B	→	C	→	B	—	B	→	Ab	→
—	Eb	→	D	→	Eb	→	D	—	D	→	C	→	D	→
→	F	→	G	→	F	—	F	→	Eb	→	F	→	Eb	—
→	B	→	Ab	—	Ab	→	G	→	Ab	→	G	—	G	→

→	B	→	Ab	—	Ab	→	G	→	Ab	→	G	—	G	→
→	C	—	C	→	B	→	C	→	B	—	B	→	Ab	→
—	Eb	→	D	→	Eb	→	D	—	D	→	C	→	D	→
→	F	→	G	→	F	—	F	→	Eb	→	F	→	Eb	—

→	F	→	G	→	F	—	F	→	Eb	→	F	→	Eb	—
→	B	→	Ab	—	Ab	→	G	→	Ab	→	G	—	G	→
→	C	—	C	→	B	→	C	→	B	—	B	→	Ab	→
—	Eb	→	D	→	Eb	→	D	—	D	→	C	→	D	→



M.S.R.P. \overline{CCBCB}

:	C	C	B	C	B	B	Ab	B	Ab	Ab	G	Ab	G	G	F	G	F	F	Eb	F	Eb	Eb	D	Eb	D	D	C	D	:	
	↓							↓							↓							↓								
	1							7							4															

Chord Family: 4-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.

4 → 3rd

3 — c.t.

1 → 2nd

→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—	
•	—	F	→	A _b	—	A _b	→	B	—	B	→	D	—	D	→
•	→	E _b	—	E _b	→	G	—	G	→	A _b	—	A _b	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→	

—	F	→	A _b	—	A _b	→	B	—	B	→	D	—	D	→
→	E _b	—	E _b	→	G	—	G	→	A _b	—	A _b	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—

**Functional
Voice-Leading**

7 — 1

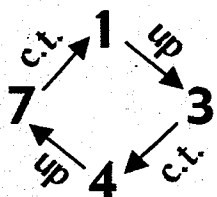
4 → 7

3 — 4

1 → 3

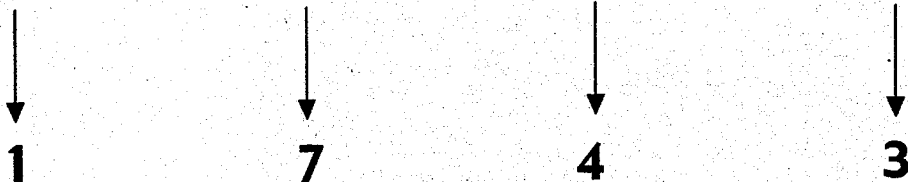
→	E _b	—	E _b	→	G	—	G	→	A _b	—	A _b	→	C	—
—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—
—	F	→	A _b	—	A _b	→	B	—	B	→	D	—	D	→

—	C	→	D	—	D	→	F	—	F	→	G	—	G	→
→	B	—	B	→	C	—	C	→	E _b	—	E _b	→	F	—
—	F	→	A _b	—	A _b	→	B	—	B	→	D	—	D	→
→	E _b	—	E _b	→	G	—	G	→	A _b	—	A _b	→	C	—



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C E_b E_b F F A_b A_b B B D D E_b E_b G G A_b A_b C :||



Chord Family: 4-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 3rd

3 — c.t.

7 — c.t.

1 → 2nd

—	F	↗	Ab	—	Ab	↗	B	—	B	↗	D	—	D	↗	
•	↗	Eb	—	Eb	↗	G	—	G	↗	Ab	—	Ab	↗	C	—
•	↗	B	—	B	↗	C	—	C	↗	Eb	—	Eb	↗	F	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗	

↗	Eb	—	Eb	↗	G	—	G	↗	Ab	—	Ab	↗	C	—
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
—	F	↗	Ab	—	Ab	↗	B	—	B	↗	D	—	D	↗
↗	B	—	B	↗	C	—	C	↗	Eb	—	Eb	↗	F	—

**Functional
Voice-Leading**

4 → 7

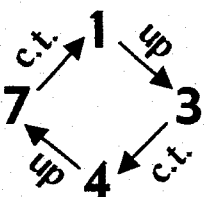
3 — 4

7 — 1

1 → 3

—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
↗	B	—	B	↗	C	—	C	↗	Eb	—	Eb	↗	F	—
↗	Eb	—	Eb	↗	G	—	G	↗	Ab	—	Ab	↗	C	—
—	F	↗	Ab	—	Ab	↗	B	—	B	↗	D	—	D	↗

↗	B	—	B	↗	C	—	C	↗	Eb	—	Eb	↗	F	—
—	F	↗	Ab	—	Ab	↗	B	—	B	↗	D	—	D	↗
—	C	↗	D	—	D	↗	F	—	F	↗	G	—	G	↗
↗	Eb	—	Eb	↗	G	—	G	↗	Ab	—	Ab	↗	C	—



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C Eb Eb F F Ab Ab B B D D Eb Eb G G Ab Ab C :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 3rd

7 — c.t.

3 — c.t.

1 → 2nd

— F →	Ab —	Ab →	B —	B →	D —	D →
• → B —	B →	C —	C →	Eb —	Eb →	F —
• → Eb —	Eb →	G —	G →	Ab —	Ab →	C —
— C →	D —	D →	F —	F →	G —	G →

**Functional
Voice-Leading**

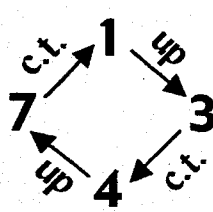
4 → 7

7 — 1

3 — 4

1 → 3

→ Eb —	Eb →	G —	G →	Ab —	Ab →	C —
— F →	Ab —	Ab →	B —	B →	D —	D →
— C →	D —	D →	F —	F →	G —	G →
→ B —	B →	C —	C →	Eb —	Eb →	F —
— C →	D —	D →	F —	F →	G —	G →
→ Eb —	Eb →	G —	G →	Ab —	Ab →	C —
→ B —	B →	C —	C →	Eb —	Eb →	F —
— F →	Ab —	Ab →	B —	B →	D —	D →
→ B —	B →	C —	C →	Eb —	Eb →	F —
— C →	D —	D →	F —	F →	G —	G →
— F →	Ab —	Ab →	B —	B →	D —	D →
→ Eb —	Eb →	G —	G →	Ab —	Ab →	C —



M.S.R.P. **C D D F F**

||: C D D F F G G B B C C Eb Eb F F Ab Ab B B D D Eb Eb G G Ab Ab C :||

↓
1

↓
7

↓
4

↓
3

Chord Family: 4-part 4ths

Cycle: 7

Scale: C harmonic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

3 — c.t.

4 → 3rd

7 — c.t.

1 → 2nd

→ Eb — Eb	→ G — G	→ Ab — Ab	→ C —
• — F → Ab — Ab	→ B — B	→ D — D	→
• → B — B	→ C — C	→ Eb — Eb	→ F —
— C → D — D	→ F — F	→ G — G	→

**Functional
Voice-Leading**

3 — 4

4 → 7

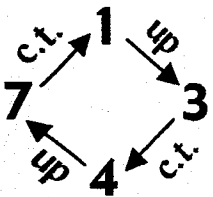
7 — 1

1 → 3

— C → D — D	→ F — F	→ G — G	→
→ Eb — Eb	→ G — G	→ Ab — Ab	→ C —
— F → Ab — Ab	→ B — B	→ D — D	→
→ B — B	→ C — C	→ Eb — Eb	→ F —

→ B — B	→ C — C	→ Eb — Eb	→ F —
— C → D — D	→ F — F	→ G — G	→
→ Eb — Eb	→ G — G	→ Ab — Ab	→ C —
— F → Ab — Ab	→ B — B	→ D — D	→

— F → Ab — Ab	→ B — B	→ D — D	→
→ B — B	→ C — C	→ Eb — Eb	→ F —
— C → D — D	→ F — F	→ G — G	→
→ Eb — Eb	→ G — G	→ Ab — Ab	→ C —



M.S.R.P. **C D D F F**

: C	D	D	F	F	G	G	B	B	C	C	E _b	E _b	F	F	A _b	A _b	B	B	D	D	E _b	E _b	G	G	A _b	A _b	C	:
↓							↓						↓								↓							
1							7						4								3							

Chord Family: 4-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 — c.t.

4 → 2nd

3 → 2nd

1 — c.t.

→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—	
•	—	F	→	G	—	G	→	A _b	—	A _b	→	B	—	B	→
•	—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	

**Functional
Voice-Leading**

7 — 3

4 → 1

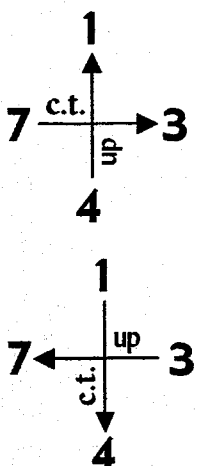
3 → 7

1 — 4

—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
—	F	→	G	—	G	→	A _b	—	A _b	→	B	—	B	→

→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	
•	→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
•	—	F	→	G	—	G	→	A _b	—	A _b	→	B	—	B	→
—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b	→	

—	F	→	G	—	G	→	A _b	—	A _b	→	B	—	B	→
—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—



M.S.R.P. 1) $\overline{C C D}$

2) $\overline{E_b F F}$

1) ||: C C D D E_b E_b F F G G A_b A_b B B :|| 2) ||: E_b F F G G A_b A_b B B C C D D E_b :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 → 2nd

7 — c.t.

4 → 2nd

1 — c.t.

— Eb → F	— F → G	— G → Ab	— Ab → B
• → B — B	→ C — C	→ D — D	→ Eb —
• — F → G	— G → Ab	— Ab → B	— B → B
→ C — C	→ D — D	→ Eb — Eb	→ F —

**Functional
Voice-Leading**

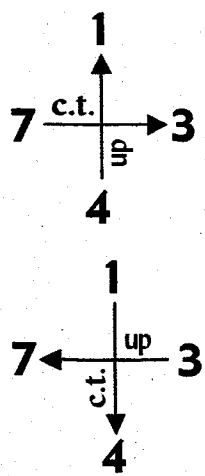
3 → 7

7 — 3

4 → 1

1 — 4

→ B — B	→ C — C	→ D — D	→ Eb —
— Eb → F	— F → G	— G → Ab	— Ab → B
→ C — C	→ D — D	→ Eb — Eb	→ F —
— F → G	— G → Ab	— Ab → B	— B → B



— F → G	— G → Ab	— Ab → B	— B → B
• → C — C	→ D — D	→ Eb — Eb	→ F —
• → B — B	→ C — C	→ D — D	→ Eb —
— Eb → F	— F → G	— G → Ab	— Ab → B

→ C — C	→ D — D	→ Eb — Eb	→ F —
— F → G	— G → Ab	— Ab → B	— B → B
— Eb → F	— F → G	— G → Ab	— Ab → B
→ B — B	→ C — C	→ D — D	→ Eb —

M.S.R.P. 1) C C D

2) Eb F F

1) ||: C C D D Eb Eb F F G G Ab Ab B B :| 2) ||: Eb F F G G Ab Ab B B C C D D Eb :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd

3 → 2nd

7 — c.t.

1 — c.t.

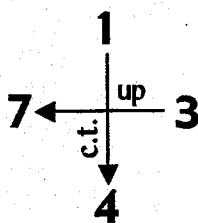
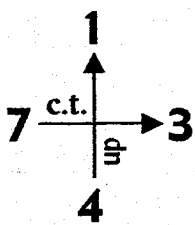
**Functional
Voice-Leading**

4 → 1

3 → 7

7 — 3

1 — 4



•	—	F	↗	G	—	G	↗	A _b	—	A _b	↗	B	—	B	↗
•	—	E _b	↗	F	—	F	↗	G	—	G	↗	A _b	—	A _b	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—
	↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
	↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—
	—	E _b	↗	F	—	F	↗	G	—	G	↗	A _b	—	A _b	↗
	—	F	↗	G	—	G	↗	A _b	—	A _b	↗	B	—	B	↗
•	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—
•	—	F	↗	G	—	G	↗	A _b	—	A _b	↗	B	—	B	↗
•	↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
	—	E _b	↗	F	—	F	↗	G	—	G	↗	A _b	—	A _b	↗
	—	E _b	↗	F	—	F	↗	G	—	G	↗	A _b	—	A _b	↗
	↗	C	—	C	↗	D	—	D	↗	E _b	—	E _b	↗	F	—
	—	F	↗	G	—	G	↗	A _b	—	A _b	↗	B	—	B	↗
	↗	B	—	B	↗	C	—	C	↗	D	—	D	↗	E _b	—

M.S.R.P. 1) $\overline{C C D}$

2) $\overline{E_b F F}$

1) ||: C C D D E_b E_b F F G G A_b A_b B B :|| 2) ||: E_b F F G G A_b A_b B B C C D D E_b :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

4 → 2nd

7 — c.t.

3 → 2nd

1 — c.t.

•	— F → G	— G → Ab	— Ab → B	— B → B
•	→ B — B	→ C — C	→ D — D	→ Eb —
•	— Eb → F	— F → G	— G → Ab	— Ab → B
•	→ C — C	→ D — D	→ Eb — Eb	→ F —
•	→ C — C	→ D — D	→ Eb — Eb	→ F —
•	— Eb → F	— F → G	— G → Ab	— Ab → B
•	→ B — B	→ C — C	→ D — D	→ Eb —
•	— F → G	— G → Ab	— Ab → B	→ B — B

**Functional
Voice-Leading**

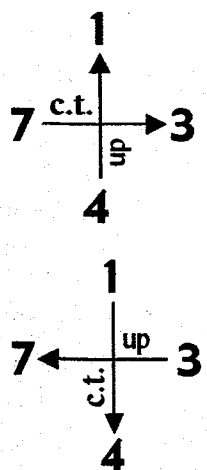
4 → 1

7 — 3

3 → 7

1 — 4

•	→ B — B	→ C — C	→ D — D	→ Eb —
•	→ C — C	→ D — D	→ Eb — Eb	→ F —
•	— F → G	— G → Ab	— Ab → B	→ B — B
•	— Eb → F	— F → G	— G → Ab	→ Ab — Ab
•	— Eb → F	— F → G	— G → Ab	→ Ab — Ab
•	— F → G	— G → Ab	— Ab → B	→ B — B
•	→ C — C	→ D — D	→ Eb — Eb	→ F —
•	→ B — B	→ C — C	→ D — D	→ Eb —



M.S.R.P. 1) \overline{CCD}

2) \overline{EbFF}

1) ||: C C D D Eb Eb F F G G Ab Ab B B :|| 2) ||: Eb F F G G Ab Ab B B C C D D Eb :||

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 — c.t.

3 → 2nd

4 → 2nd

1 — c.t.

→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
•	—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b →
•	—	F	→	G	—	G	→	A _b	—	A _b →	B	—	B	→
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—

—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b →	
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
—	F	→	G	—	G	→	A _b	—	A _b →	B	—	B	→	

**Functional
Voice-Leading**

7 — 3

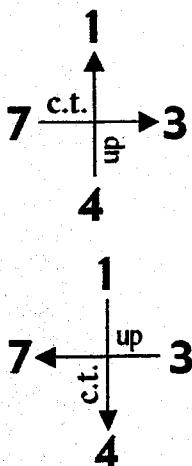
3 → 7

4 → 1

1 — 4

→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—	
•	—	F	→	G	—	G	→	A _b	—	A _b →	B	—	B	→	
•	→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—
—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b →		

—	F	→	G	—	G	→	A _b	—	A _b →	B	—	B	→	
→	C	—	C	→	D	—	D	→	E _b	—	E _b	→	F	—
—	E _b	→	F	—	F	→	G	—	G	→	A _b	—	A _b →	
→	B	—	B	→	C	—	C	→	D	—	D	→	E _b	—



M.S.R.P. 1) \overline{CCD}

2) \overline{EbFF}

1) $\parallel: C C D D E_b E_b F F G G A_b A_b B B : \parallel$ 2) $\parallel: E_b F F G G A_b A_b B B C C D D E_b : \parallel$

↓
1

↓
4

↓
3

↓
7

Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 5

Scale: C harmonic minor

**Intervallic
 Voice-Leading**

3 → 2nd
 4 → 2nd
 7 — c.t.
 1 — c.t.

— Eb →	F —	F →	G —	G →	Ab —	Ab →
• — F →	G —	G →	Ab —	Ab →	B —	B →
• → B —	B →	C —	C →	D —	D →	Eb —
→ C —	C →	D —	D →	Eb —	Eb →	F —

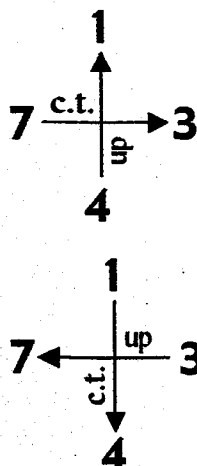
**Functional
 Voice-Leading**

3 → 7
 4 → 1
 7 — 3
 1 — 4

→ B —	B →	C —	C →	D —	D →	Eb —
→ C —	C →	D —	D →	Eb —	Eb →	F —
— Eb →	F —	F →	G —	G →	Ab —	Ab →
— F →	G —	G →	Ab —	Ab →	B —	B →

— F →	G —	G →	Ab —	Ab →	B —	B →
• → B —	B →	C —	C →	D —	D →	Eb —
• → C —	C →	D —	D →	Eb —	Eb →	F —
— Eb →	F —	F →	G —	G →	Ab —	Ab →

→ C —	C →	D —	D →	Eb —	Eb →	F —
— Eb →	F —	F →	G —	G →	Ab —	Ab →
— F →	G —	G →	Ab —	Ab →	B —	B →
→ B —	B →	C —	C →	D —	D →	Eb —



M.S.R.P. 1) C C D 2) Eb F F

1) ||: C C D D Eb Eb F F G G Ab Ab B B :|| 2) ||: Eb F F G G Ab Ab B B C C D D Eb :||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

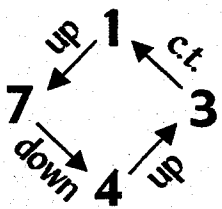
- 7 → 2nd
- 4 → 2nd
- 3 — c.t.
- 1 → 2nd

• → B → Ab → B — B → C → B → C —
 • → F → G — G → Ab → G → Ab — Ab →
 • → Eb — Eb → F → Eb → F — F → G →
 — C → D → C → D — D → Eb → D →

**Functional
Voice-Leading**

- 7 → 4
- 4 → 3
- 3 — 1
- 1 → 7

— C → D → C → D — D → Eb → D →
 → B → Ab → B — B → C → B → C —
 → F → G — G → Ab → G → Ab — Ab →
 → Eb — Eb → F → Eb → F — F → G →
 → Eb — Eb → F → Eb → F — F → G →
 — C → D → C → D — D → Eb → D →
 → B → Ab → B — B → C → B → C —
 → F → G — G → Ab → G → Ab — Ab →



→ F → G — G → Ab → G → Ab — Ab →
 → Eb — Eb → F → Eb → F — F → G →
 — C → D → C → D — D → Eb → D →
 → B → Ab → B — B → C → B → C —

M.S.R.P. $\overline{C D C D D}$

||: C D C D D Eb D Eb Eb F Eb F FG FG G Ab G Ab Ab B Ab B C BC BC: ||



Chord Family: 4-part 4ths

Cycle: 3

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

3 — c.t.

7 ↘ 2nd

4 ↘ 2nd

1 ↘ 2nd

→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
→	B	→	A _b	→	B	—	B	→	C	→	B	→	C	—
→	F	→	G	—	G	→	A _b	→	G	→	A _b	—	A _b	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→

→	F	→	G	—	G	→	A _b	→	G	→	A _b	—	A _b	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	B	→	A _b	→	B	—	B	→	C	→	B	→	C	—
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	—

**Functional
Voice-Leading**

3 — 1

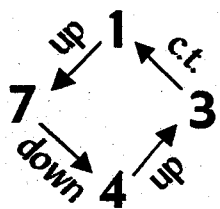
7 ↘ 4

4 ↘ 3

1 ↘ 7

→	B	→	A _b	→	B	—	B	→	C	→	B	→	C	—
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A _b	→	G	→	A _b	—	A _b	→

—	C	→	D	→	C	→	D	—	D	→	E _b	→	D	→
→	F	→	G	—	G	→	A _b	→	G	→	A _b	—	A _b	→
→	E _b	—	E _b	→	F	→	E _b	→	F	—	F	→	G	→
→	B	→	A _b	→	B	—	B	→	C	→	B	→	C	—



M.S.R.P. $\overline{C D C D D}$

||: C D C D D E_b D E_b E_b F E_b F F G F G G A_b G A_b A_b B A_b B B C B C :||

↓
1

↓
3

↓
4

↓
7

Chord Family: 4-part 4ths

Cycle: 3

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

4 → 2nd

3 — c.t.

7 → 2nd

1 → 2nd

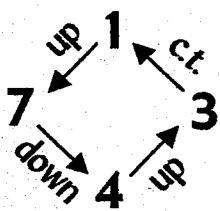
**Functional
Voice-Leading**

4 → 3

3 — 1

7 → 4

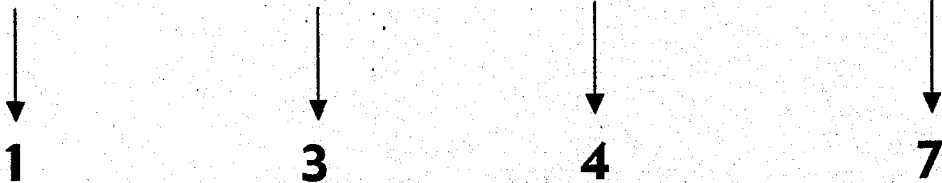
1 → 7



•	→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
•	→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	→
•	→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
	— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
	→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
	→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
	— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
	→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
	— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
	→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
	→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	→
	→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
	→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	→
	— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
	→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
	→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—

M.S.R.P. **C D C D D**

||: C D C D D Eb D Eb Eb F Eb F F G F G G Ab G Ab Ab B Ab B C B C :||



Chord Family: 4-part 4ths
Voicing Type: Drop 2 & 3

Cycle: 3

Scale: C harmonic minor

**Intervallic
Voice-Leading**

4 → 2nd
 7 → 2nd
 3 — c.t.
 1 → 2nd

→ F → G — G → Ab → G → Ab — Ab →
 • → B → Ab → B — B → C → B → C —
 • → Eb — Eb → F → Eb → F — F → G —
 — C → D → C → D — D → Eb → D →

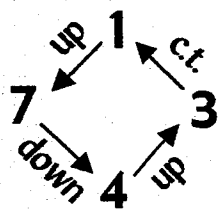
→ B → Ab → B — B → C → B → C —
 — C → D → C → D — D → Eb → D →
 → F → G — G → Ab → G → Ab — Ab →
 → Eb — Eb → F → Eb → F — F → G —

**Functional
Voice-Leading**

4 → 3
 7 → 4
 3 — 1
 1 → 7

— C → D → C → D — D → Eb → D →
 → Eb — Eb → F → Eb → F — F → G —
 → B → Ab → B — B → C → B → C —
 → F → G — G → Ab → G → Ab — Ab →

→ Eb — Eb → F → Eb → F — F → G →
 → F → G — G → Ab → G → Ab — Ab →
 — C → D → C → D — D → Eb → D →
 → B → Ab → B — B → C → B → C —



M.S.R.P. $\overline{C D C D D}$

||: C D C D D Eb D Eb Eb F Eb F F G F G G Ab G Ab Ab B Ab B C B C :||
 ↓ ↓ ↓ ↓
 1 3 4 7

Chord Family: 4-part 4ths

Cycle: 3

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd

3 — c.t.

4 → 2nd

1 → 2nd

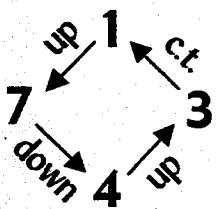
**Functional
Voice-Leading**

7 → 4

3 — 1

4 → 3

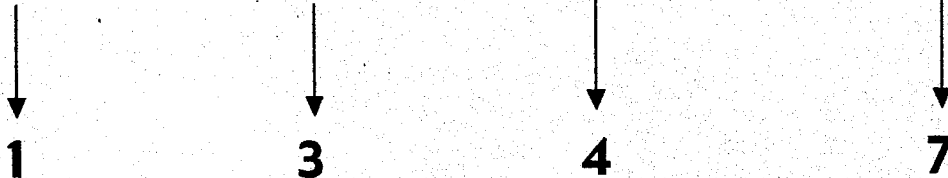
1 → 7



→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
• → Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
• → F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	—
→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
→ F	→ G	— G	→ Ab	→ G	→ Ab	— Ab	→
— C	→ D	→ C	→ D	— D	→ Eb	→ D	→
→ Eb	— Eb	→ F	→ Eb	→ F	— F	→ G	→
→ B	→ Ab	→ B	— B	→ C	→ B	→ C	—

M.S.R.P. $\overline{C D C D D}$

||: C D C D D Eb D Eb Eb F Eb F F G F G G Ab G Ab Ab B Ab B C B C :||



Chord Family: 4-part 4ths
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 3

Scale: C harmonic minor

**Intervallic
 Voice-Leading**

3 — c.t.
 4 → 2nd
 7 ↘ 2nd
 1 → 2nd

• → Eb — Eb → F → Eb → F — F → G —
 • ↘ F → G — G → Ab → G → Ab — Ab →
 • → B → Ab → B — B → C → B → C —
 — C → D → C → D — D → Eb → D →

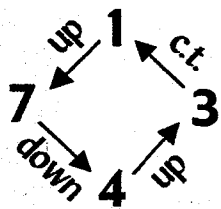
**Functional
 Voice-Leading**

3 — 1
 4 → 3
 7 ↘ 4
 1 → 7

↘ F → G — G → Ab → G → Ab — Ab →
 → B → Ab → B — B → C → B → C —
 — C → D → C → D — D → Eb → D →
 → Eb — Eb → F → Eb → F — F → G —

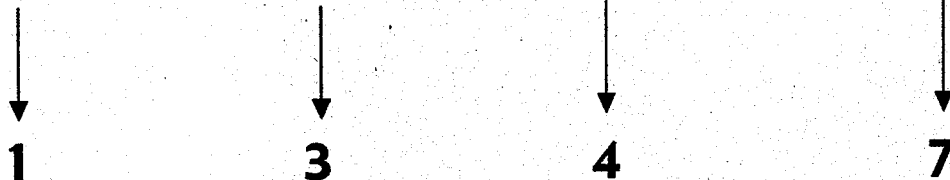
→ B → Ab → B — B → C → B → C —
 — C → D → C → D — D → Eb → D →
 → Eb — Eb → F → Eb → F — F → G →
 ↘ F → G — G → Ab → G → Ab — Ab →

— C → D → C → D — D → Eb → D →
 → Eb — Eb → F → Eb → F — F → G →
 ↘ F → G — G → Ab → G → Ab — Ab →
 → B → Ab → B — B → C → B → C —



M.S.R.P. $\overline{C D C D D}$

||: C D C D D Eb D Eb Eb F Eb F F G F G G Ab G Ab Ab B Ab B BC BC :||



SPREAD CLUSTERS

ALL VOICINGS

ALL CYCLES

C MAJOR

Chord Family: Spread Clusters

Cycle: 2

Scale: C major

Voicing Type: 4-way close

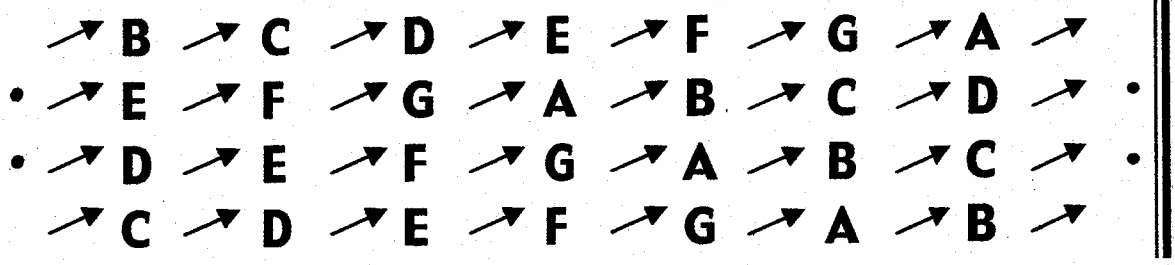
**Intervallic
Voice-Leading**

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd



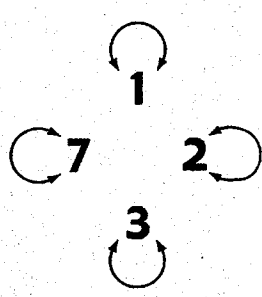
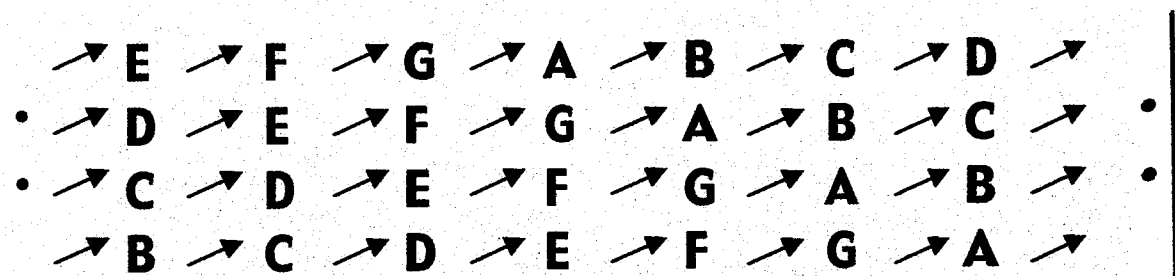
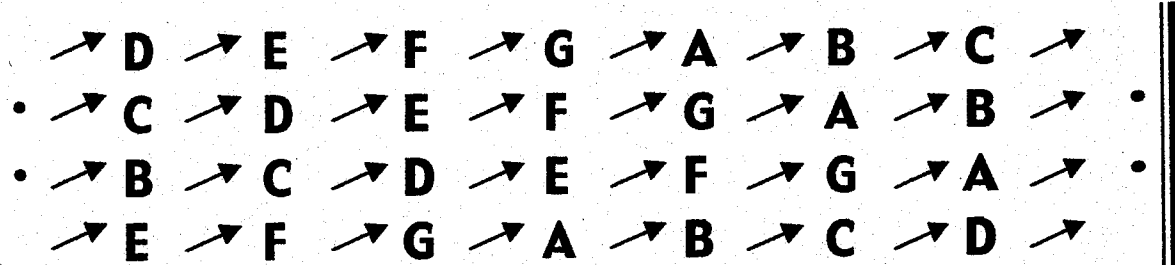
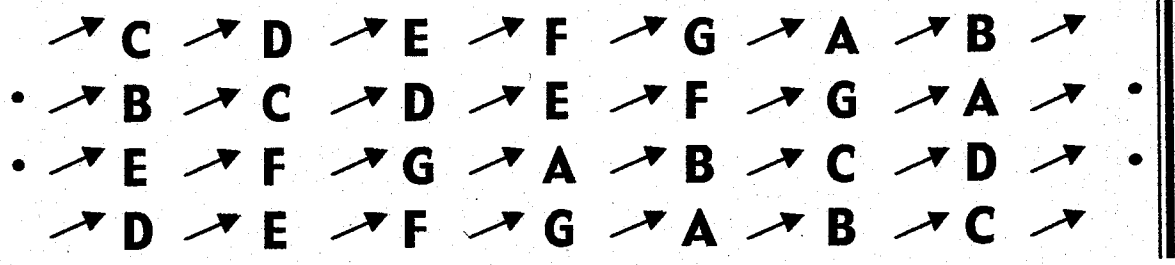
**Functional
Voice-Leading**

7 → 7

3 → 3

2 → 2

1 → 1



Chord Family: Spread Clusters

Cycle: 2

Scale: C major

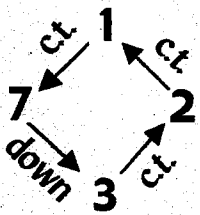
Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 — c.t.
7 → 4th
3 — c.t.
1 — c.t.

**Functional
Voice-Leading**

2 — 1
7 → 3
3 — 2
1 — 7



—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
•	B	→	F	—	F	—	F	—	F	→	C	—	C	—
•	E	—	E	—	E	—	E	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—

M.S.R.P. **CCGGG**

||: CCGGGGDDDDAAAEEEEBBBBFFFC :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 2

Scale: C major

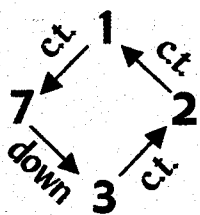
Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 — c.t.
2 — c.t.
7 → 4th
1 — c.t.

**Functional
Voice-Leading**

3 — 2
2 — 1
7 → 3
1 — 7



→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
•	—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
•	—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	

M.S.R.P. **CCGGGG**

||: C C G G G G D D D D A A A A E E E E B B B B F F F F C C :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 2

Scale: C major

Voicing Type: Drop 2 & 3

Intervallic

Voice-Leading

3 — c.t.

7 → 4th

2 — c.t.

1 — c.t.

Functional

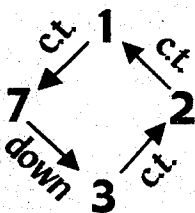
Voice-Leading

3 — 2

7 → 3

2 — 1

1 — 7



→ E	— E	— E	— E	→ B	— B	— B	—
• — B	→ F	— F	— F	— F	→ C	— C	—
• — D	— D	— D	→ A	— A	— A	— A	→
— C	— C	→ G	— G	— G	— G	→ D	—
— B	→ F	— F	— F	— F	→ C	— C	—
— C	— C	→ G	— G	— G	— G	→ D	—
→ E	— E	— E	— E	→ B	— B	— B	—
— D	— D	— D	→ A	— A	— A	— A	→
— C	— C	→ G	— G	— G	— G	→ D	—
— D	— D	— D	→ A	— A	— A	— A	→
— B	→ F	— F	— F	— F	→ C	— C	—
→ E	— E	— E	— E	→ B	— B	— B	—
— D	— D	— D	→ A	— A	— A	— A	→
→ E	— E	— E	— E	→ B	— B	— B	—
— C	— C	→ G	— G	— G	— G	→ D	—
— B	→ F	— F	— F	— F	→ C	— C	—

M.S.R.P. **CCGGG**

||: C C G G G G D D D A A A E E E B B B F F F C C :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 2

Scale: C major

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

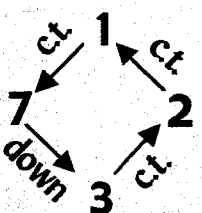
7 → 4th
2 — c.t.
3 — c.t.
1 — c.t.

—	B	↘	F	—	F	—	F	—	F	↘	C	—	C	—	
•	—	D	—	D	—	D	↘	A	—	A	—	A	—	A	↘
•	↘	E	—	E	—	E	—	E	↘	B	—	B	—	B	—
—	C	—	C	↘	G	—	G	—	G	—	G	↘	D	—	

**Functional
Voice-Leading**

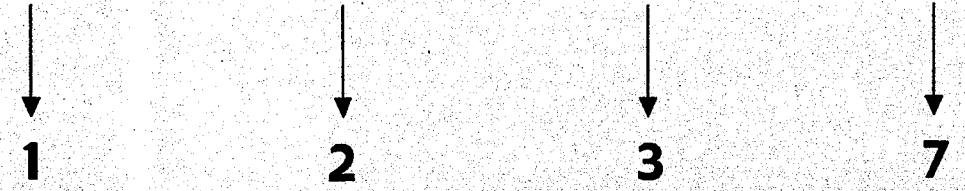
7 → 3
2 — 1
3 — 2
1 — 7

—	C	—	C	↘	G	—	G	—	G	—	G	↘	D	—
↘	E	—	E	—	E	—	E	↘	B	—	B	—	B	—
—	B	↘	F	—	F	—	F	—	F	↘	C	—	C	—
—	D	—	D	—	D	↘	A	—	A	—	A	—	A	↘
—	D	—	D	—	D	↘	A	—	A	—	A	—	A	↘
—	B	↘	F	—	F	—	F	—	F	↘	C	—	C	—
—	C	—	C	↘	G	—	G	—	G	—	G	↘	D	—
↘	E	—	E	—	E	—	E	↘	B	—	B	—	B	—
↘	E	—	E	—	E	—	E	↘	B	—	B	—	B	—
—	C	—	C	↘	G	—	G	—	G	—	G	↘	D	—
—	D	—	D	—	D	↘	A	—	A	—	A	—	A	↘
—	B	↘	F	—	F	—	F	—	F	↘	C	—	C	—



M.S.R.P. **CCGGG**

CCGGGGDDDDAAAAEEEEBBBBFFFCC



Chord Family: Spread Clusters

Cycle: 2

Scale: C major

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

2 — c.t.

3 — c.t.

7 → 4th

1 — c.t.

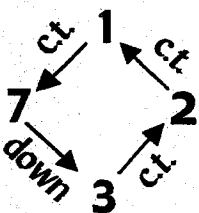
**Functional
Voice-Leading**

2 — 1

3 — 2

7 → 3

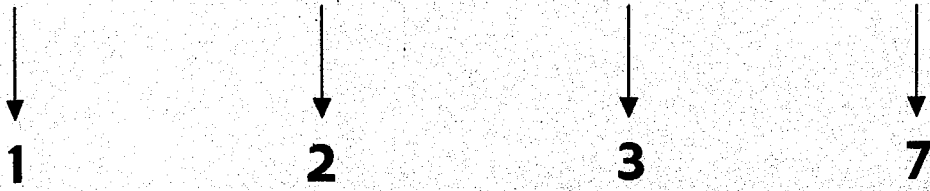
1 — 7



—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
•	→	E	—	E	—	E	—	E	→	B	—	B	—	B	—
•	—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
→	E	—	E	—	E	—	E	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	

M.S.R.P. **CCGGGG**

||: CCGGGGDDDDAAAEEEEBBBBFFFCC :||



Chord Family: Spread Clusters

Cycle: 4

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 3rd

→	B	→	G	→	A	→	F	→	G	→	E	→	F	→	
•	→	E	→	F	→	D	→	E	→	C	→	D	→	B	→
•	→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	

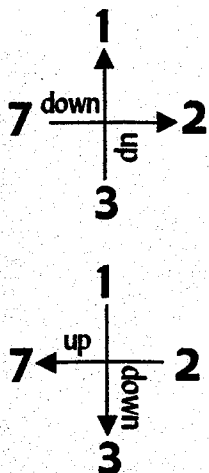
→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	B	→	G	→	A	→	F	→	G	→	E	→	F	→
→	E	→	F	→	D	→	E	→	C	→	D	→	B	→

**Functional
Voice-Leading**

7 → 2
3 → 1
2 → 7
1 → 3

→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	
•	→	B	→	G	→	A	→	F	→	G	→	E	→	F	→
•	→	E	→	F	→	D	→	E	→	C	→	D	→	B	→
→	D	→	E	→	C	→	D	→	B	→	C	→	A	→	

→	E	→	F	→	D	→	E	→	C	→	D	→	B	→
→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	B	→	G	→	A	→	F	→	G	→	E	→	F	→



M.S.R.P. 1) CABGA 2) DECDB

1) ||: CABGAFGEFDECDB:| 2) ||: DECDBCABGAFGEF:|

1

3

2

7

Chord Family: Spread Clusters

Cycle: 4

Scale: C major

Voicing Type: Drop 2

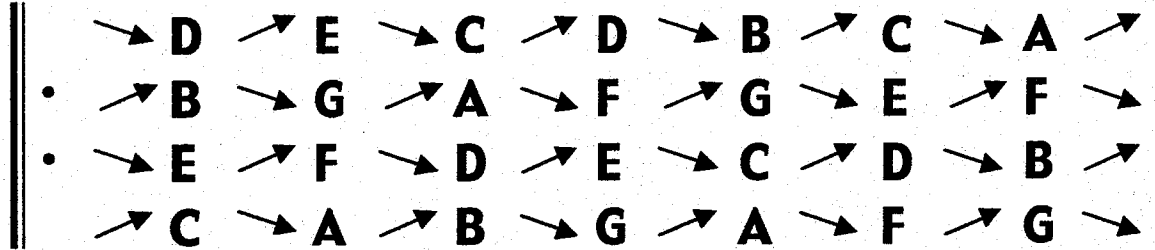
**Intervallic
Voice-Leading**

2 → 2nd

7 → 3rd

3 → 2nd

1 → 3rd



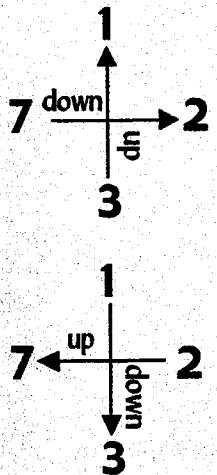
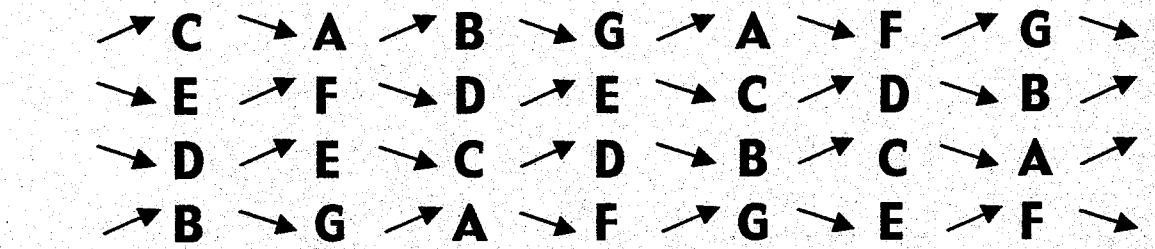
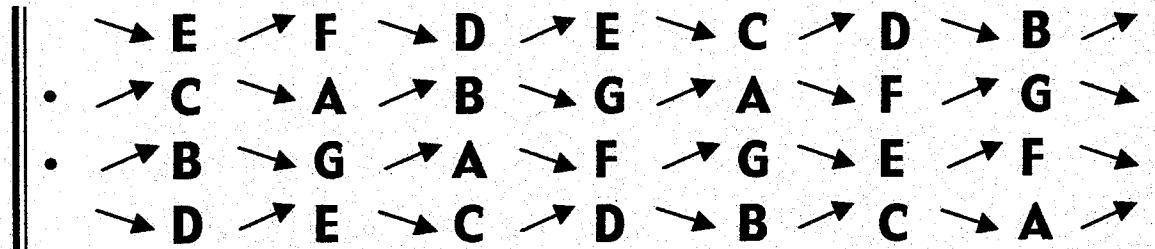
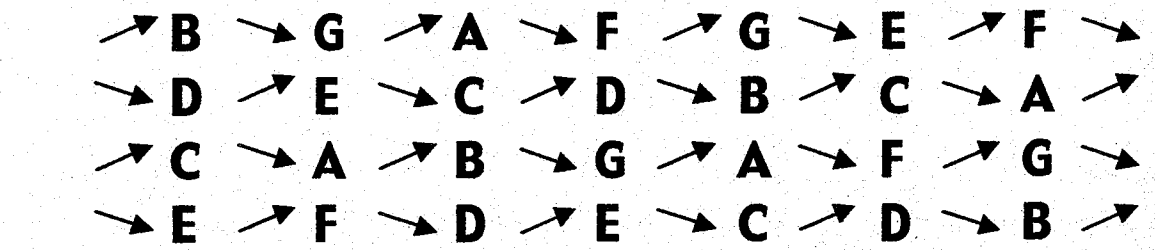
**Functional
Voice-Leading**

2 → 7

7 → 2

3 → 1

1 → 3



M.S.R.P. 1) CABGA 2) DECDB

1) ||: CABGAFGEFDECDB:| 2) ||: DECDBCABGAFGEF:|

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 2nd
2 → 2nd
7 → 3rd
1 → 3rd

→	E	→	F	→	D	→	E	→	C	→	D	→	B	→	
•	→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
•	→	B	→	G	→	A	→	F	→	G	→	E	→	F	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	

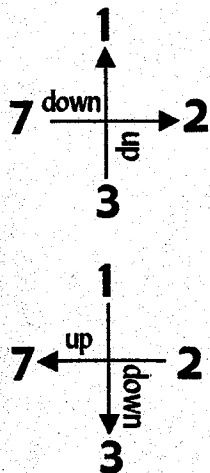
**Functional
Voice-Leading**

3 → 1
2 → 7
7 → 2
1 → 3

→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	B	→	G	→	A	→	F	→	G	→	E	→	F	→
→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
→	E	→	F	→	D	→	E	→	C	→	D	→	B	→

→	B	→	G	→	A	→	F	→	G	→	E	→	F	→	
•	→	E	→	F	→	D	→	E	→	C	→	D	→	B	→
•	→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	D	→	E	→	C	→	D	→	B	→	C	→	A	→	

→	D	→	E	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	E	→	F	→	D	→	E	→	C	→	D	→	B	→
→	B	→	G	→	A	→	F	→	G	→	E	→	F	→



M.S.R.P. 1) CABGA 2) DECDB

1) ||: CABGAFGEFDECDB:| 2) ||: DECDBCABGAFGEF:|

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C major

Voicing Type: Drop 2 & 3

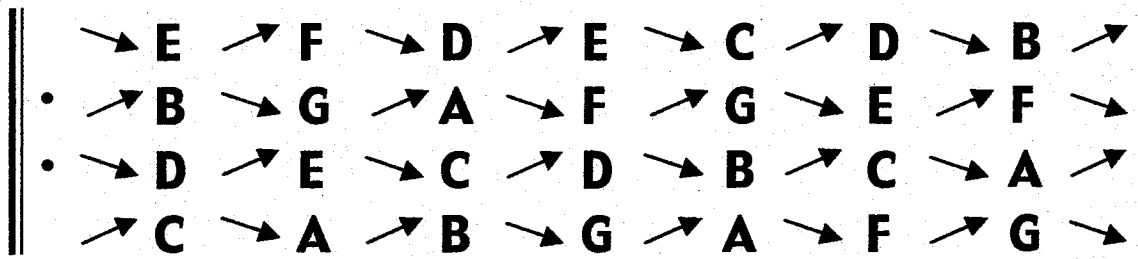
**Intervallic
Voice-Leading**

3 → 2nd

7 → 3rd

2 → 2nd

1 → 3rd



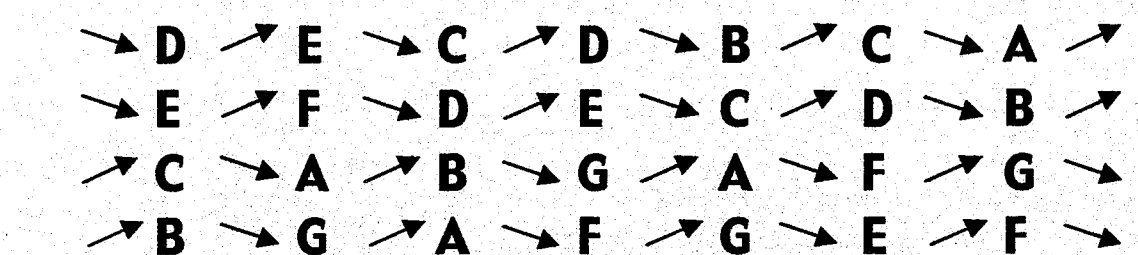
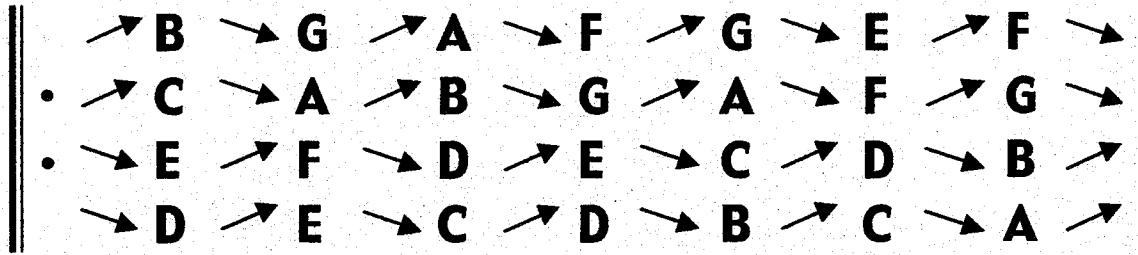
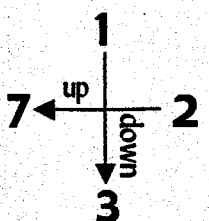
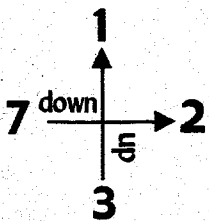
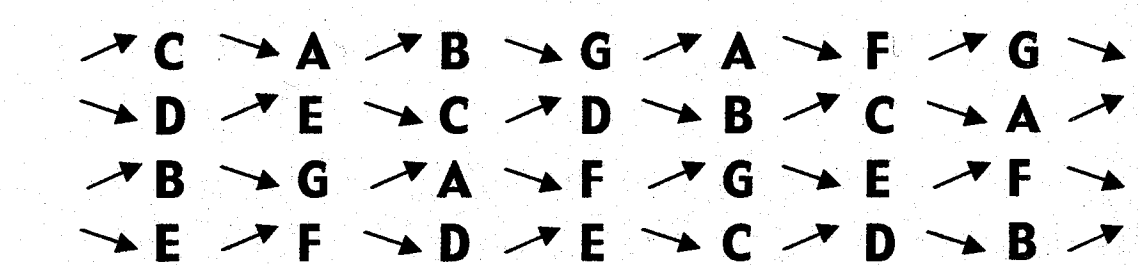
**Functional
Voice-Leading**

3 → 1

7 → 2

2 → 7

1 → 3



M.S.R.P. 1) CABGA 2) DECDB

1) ||: CABGAFGEFDECDB:| 2) ||: DECDBCABGAFGEF:|

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

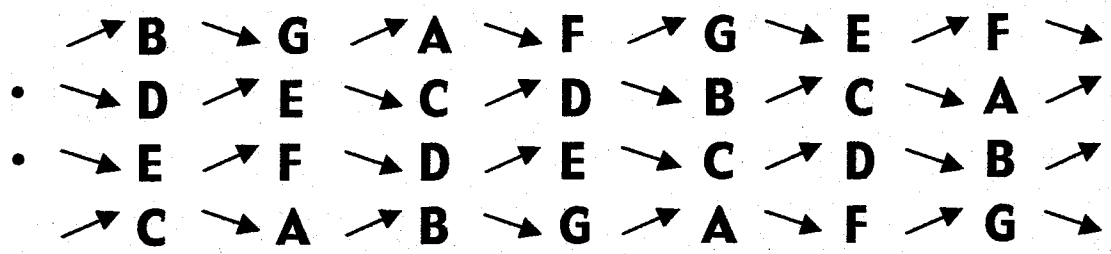
Cycle: 4

Scale: C major

Voicing Type: Drop 2 & 4

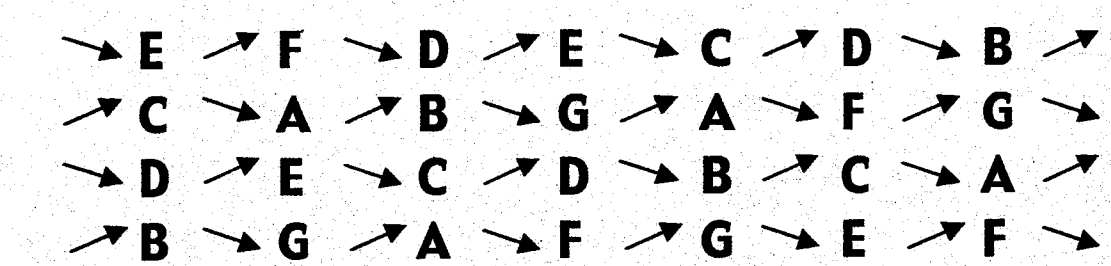
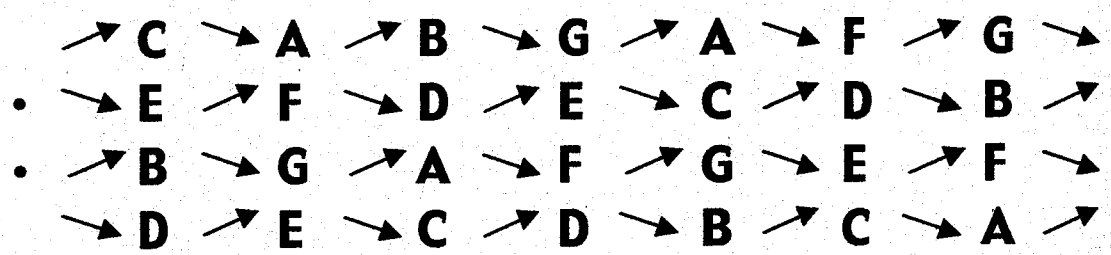
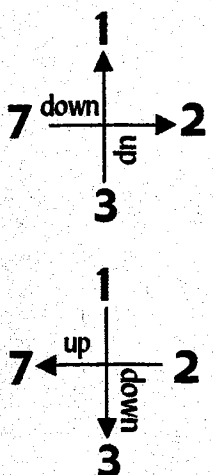
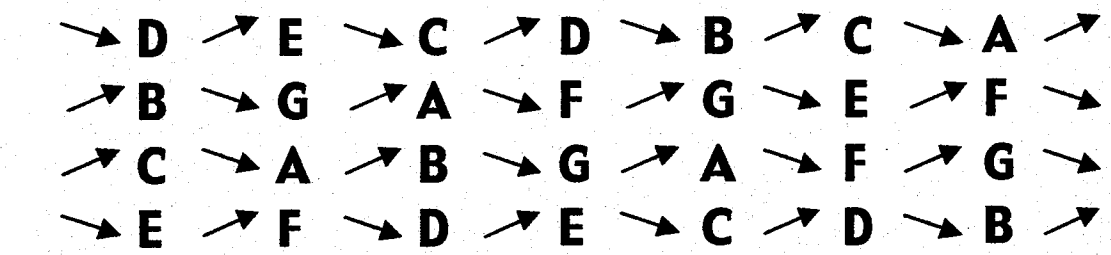
**Intervallic
Voice-Leading**

7 → 3rd
2 → 2nd
3 → 2nd
1 → 3rd



**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3



M.S.R.P. 1) CABGA 2) DECDB

1) ||: C A B G A F G E F D E C D B :|| 2) ||: D E C D B C A B G A F G E F :||



Chord Family: Spread Clusters

Cycle: 4

Scale: C major

Voicing Type: Double Drop 2,
Drop 3

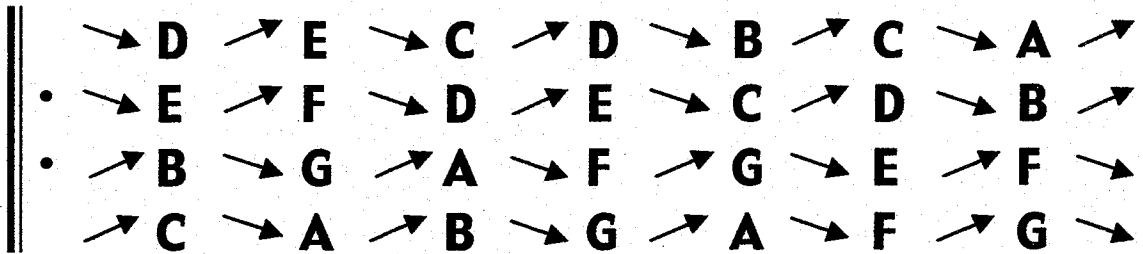
**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 → 3rd

1 → 3rd



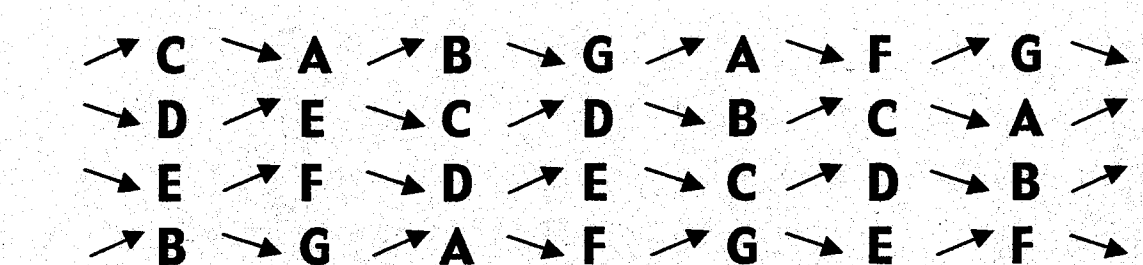
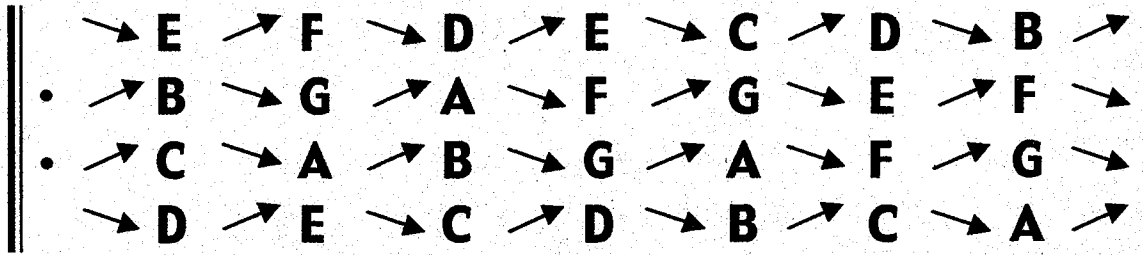
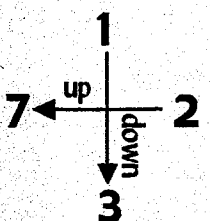
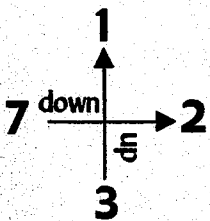
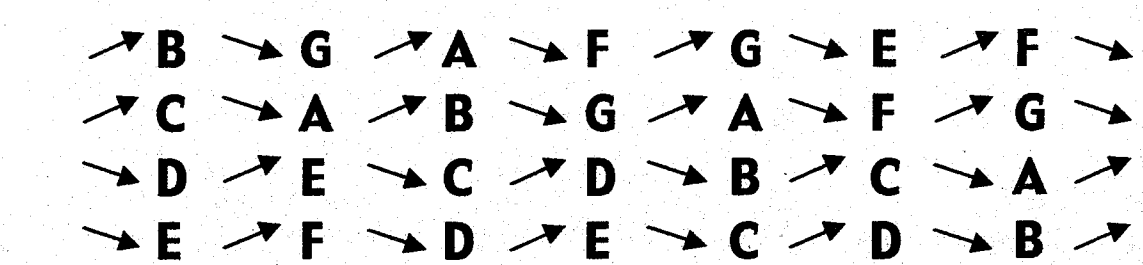
**Functional
Voice-Leading**

2 → 7

3 → 1

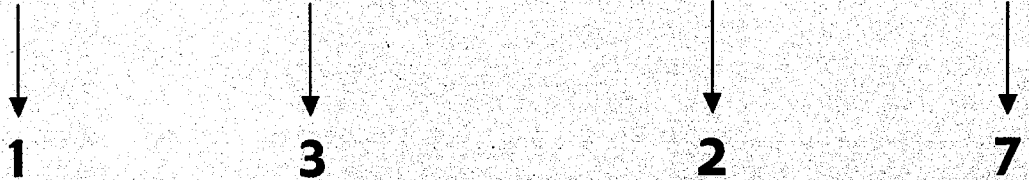
7 → 2

1 → 3



M.S.R.P. 1) CABGA 2) DECDB

1) ||: CABGAFGEFDECDB:| 2) ||: DECDBCABGAFGEF:|



Chord Family: Spread Clusters

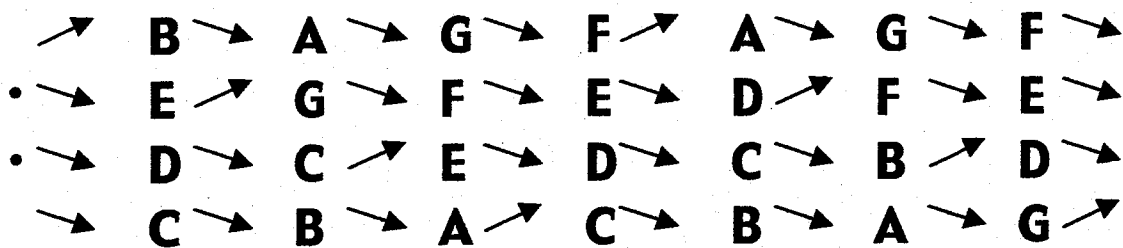
Cycle: 6

Scale: C major

Voicing Type: 4-way close

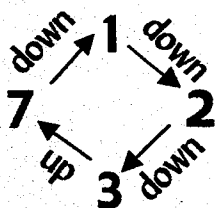
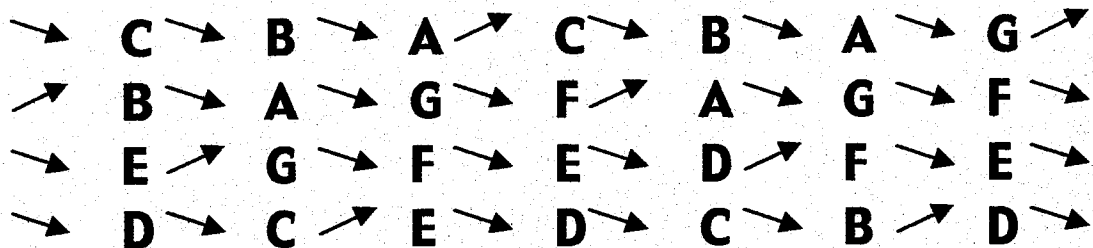
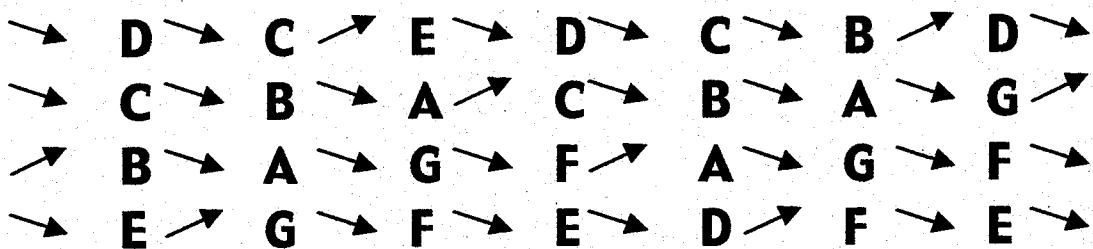
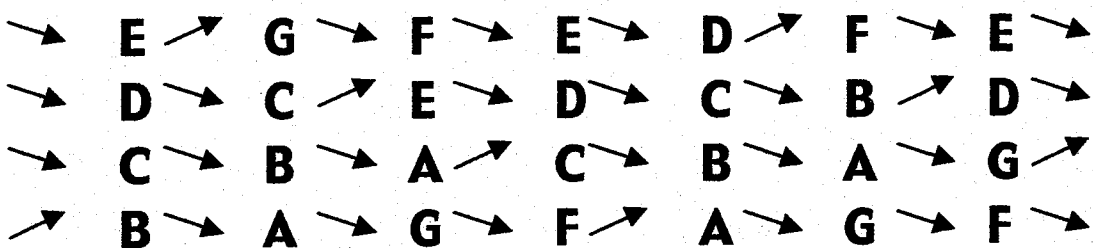
**Intervallic
Voice-Leading**

7 → 2nd
3 → 3rd
2 → 2nd
1 → 2nd



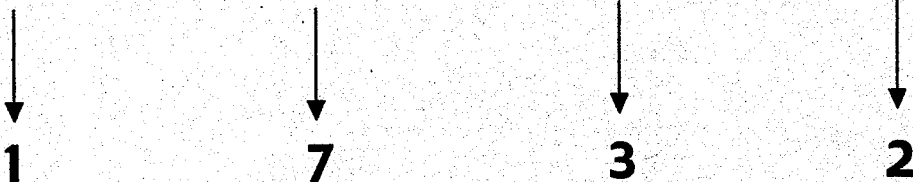
**Functional
Voice-Leading**

7 → 1
3 → 7
2 → 3
1 → 2



M.S.R.P. **CBACB**

||:CBACBAGBAGFA GFEG FED FED CED CBD :||



Chord Family: Spread Clusters

Cycle: 6

Scale: C major

Voicing Type: Drop 2

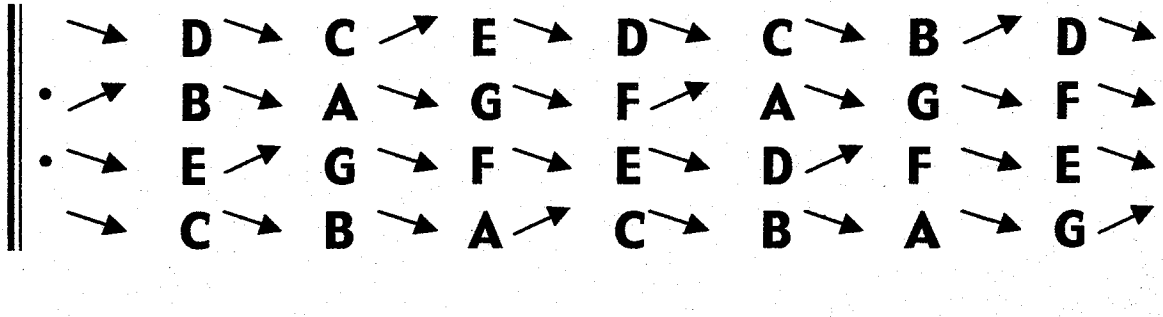
**Intervallic
Voice-Leading**

2 → 2nd

7 → 2nd

3 → 3rd

1 → 2nd



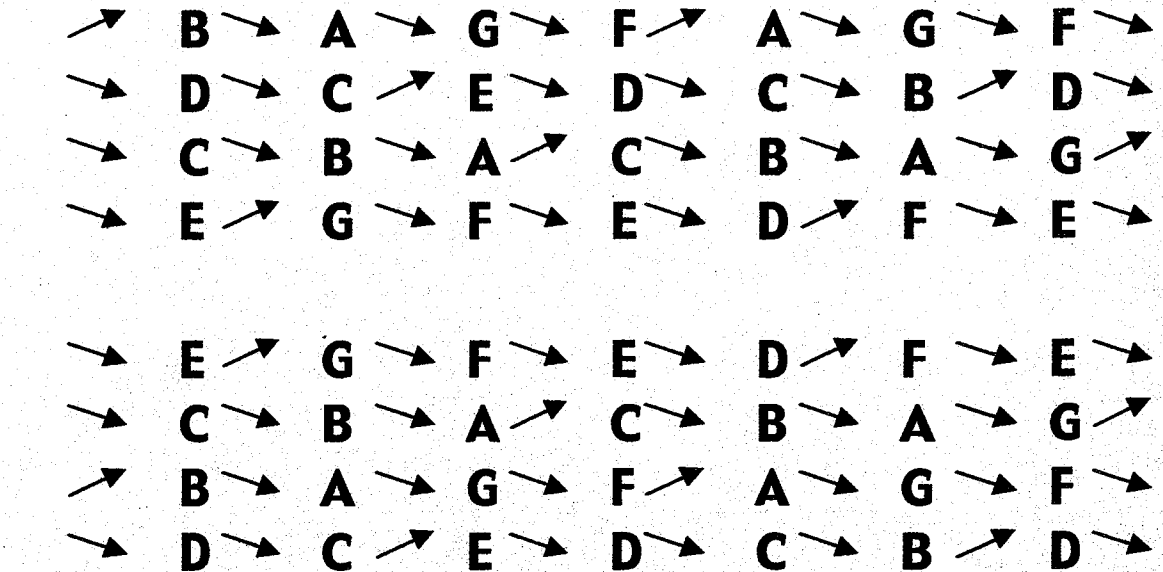
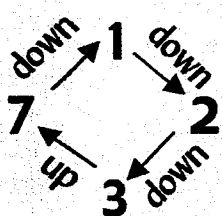
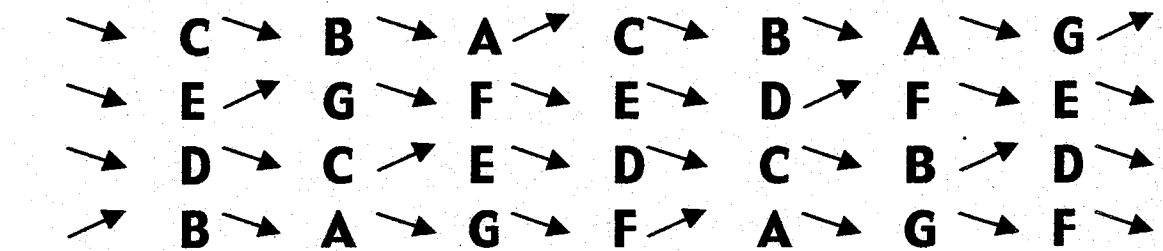
**Functional
Voice-Leading**

2 → 3

7 → 1

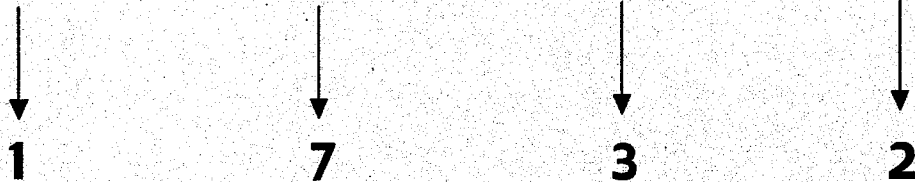
3 → 7

1 → 2



M.S.R.P. **C B A C B**

:C B A C B A G B A G F A G F E G F E D F E D C E D C B D :|



Chord Family: Spread Clusters

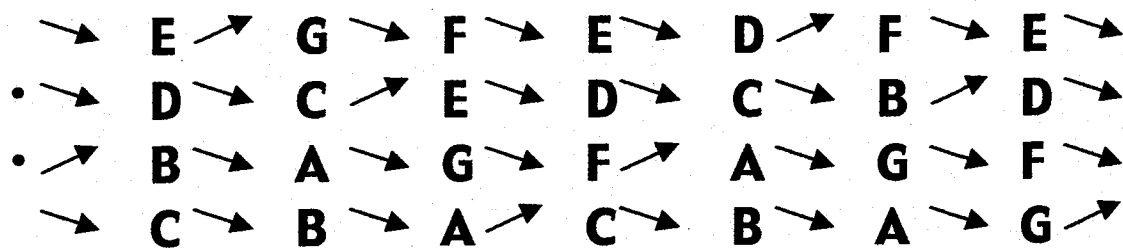
Cycle: 6

Scale: C major

Voicing Type: Drop 3

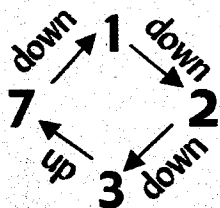
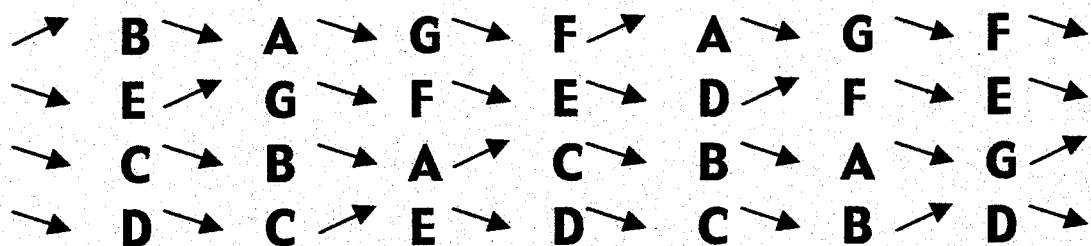
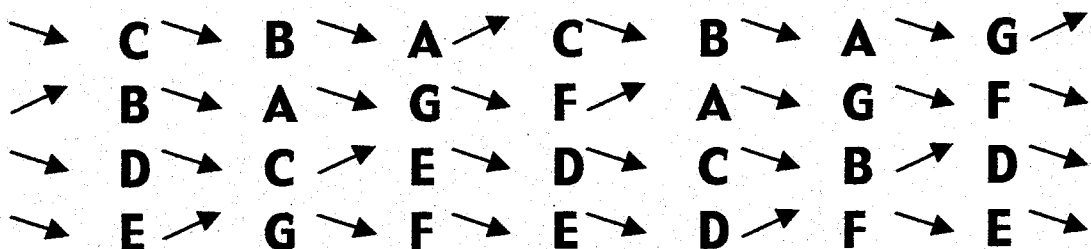
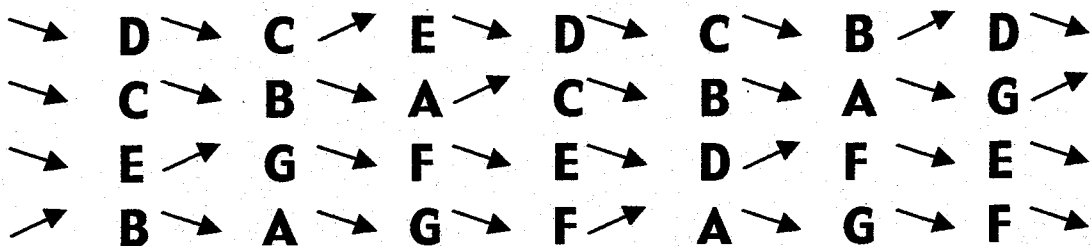
**Intervallic
Voice-Leading**

3 → 3rd
2 → 2nd
7 → 2nd
1 → 2nd



**Functional
Voice-Leading**

3 → 7
2 → 3
7 → 1
1 → 2



M.S.R.P. **CBACB**

||:C B A C B A G B A G F A G F E G F E D F E D C E D C B D :||

1

7

3

2

Chord Family: Spread Clusters

Cycle: 6

Scale: C major

Voicing Type: Drop 2 & 3

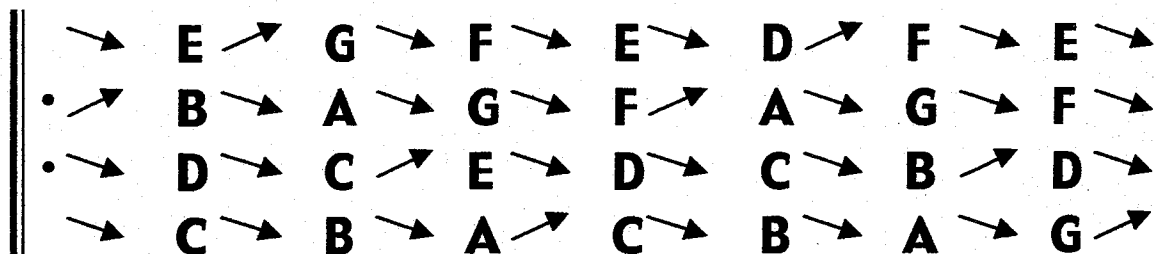
**Intervallic
Voice-Leading**

3 → 3rd

7 → 2nd

2 → 2nd

1 → 2nd



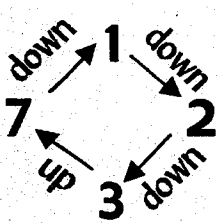
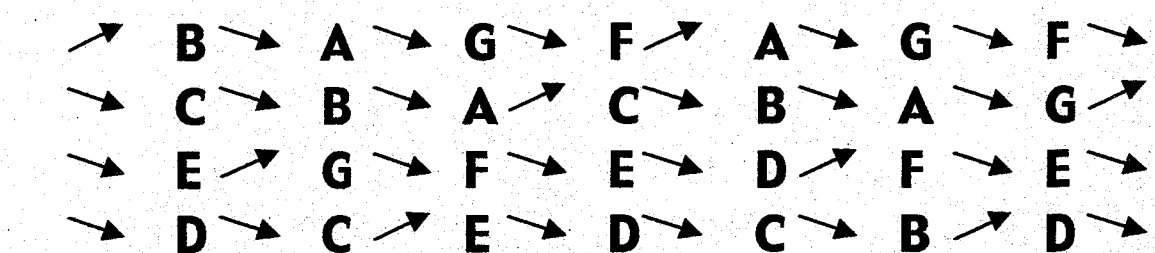
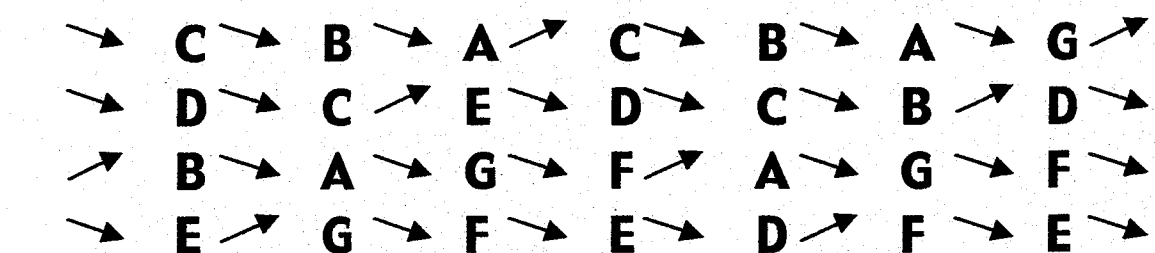
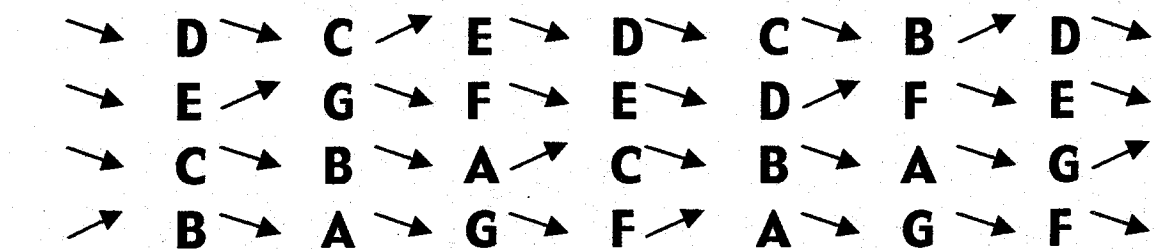
**Functional
Voice-Leading**

3 → 7

7 → 1

2 → 3

1 → 2



M.S.R.P. **C B A C B**

||: C B A C B A G B A G F A G F E G F E D F E D C E D C B D :||

↓
1

↓
7

↓
3

↓
2

Chord Family: Spread Clusters

Cycle: 6

Scale: C major

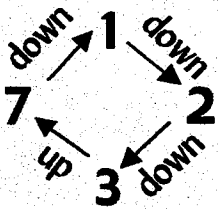
Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

- 7 → 2nd
- 2 → 2nd
- 3 → 3rd
- 1 → 2nd

**Functional
Voice-Leading**

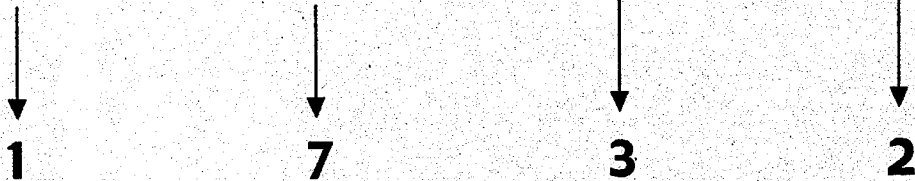
- 7 → 1
- 2 → 3
- 3 → 7
- 1 → 2



→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
• →	D	→	C	→	E	→	D	→	C	→	B	→	D	→
• →	E	→	G	→	F	→	E	→	D	→	F	→	E	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	E	→	G	→	F	→	E	→	D	→	F	→	E	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	D	→	C	→	E	→	D	→	C	→	B	→	D	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	D	→	C	→	E	→	D	→	C	→	B	→	D	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	E	→	G	→	F	→	E	→	D	→	F	→	E	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	E	→	G	→	F	→	E	→	D	→	F	→	E	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	D	→	C	→	E	→	D	→	C	→	B	→	D	→

M.S.R.P. C B A C B

||: C B A C B A G B A G F A G F E G F E D F E D C E D C B D :||



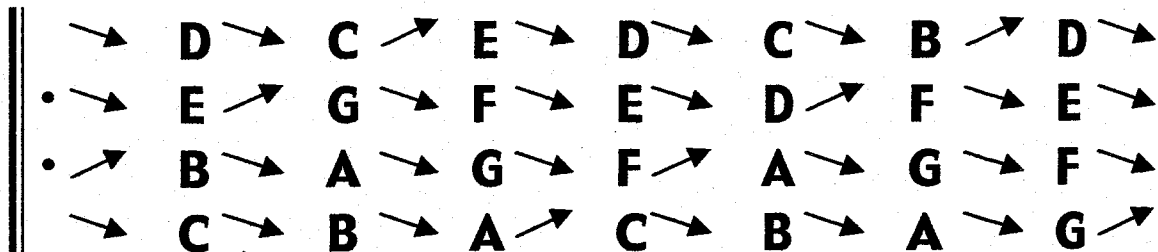
Chord Family: Spread Clusters
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 6

Scale: C major

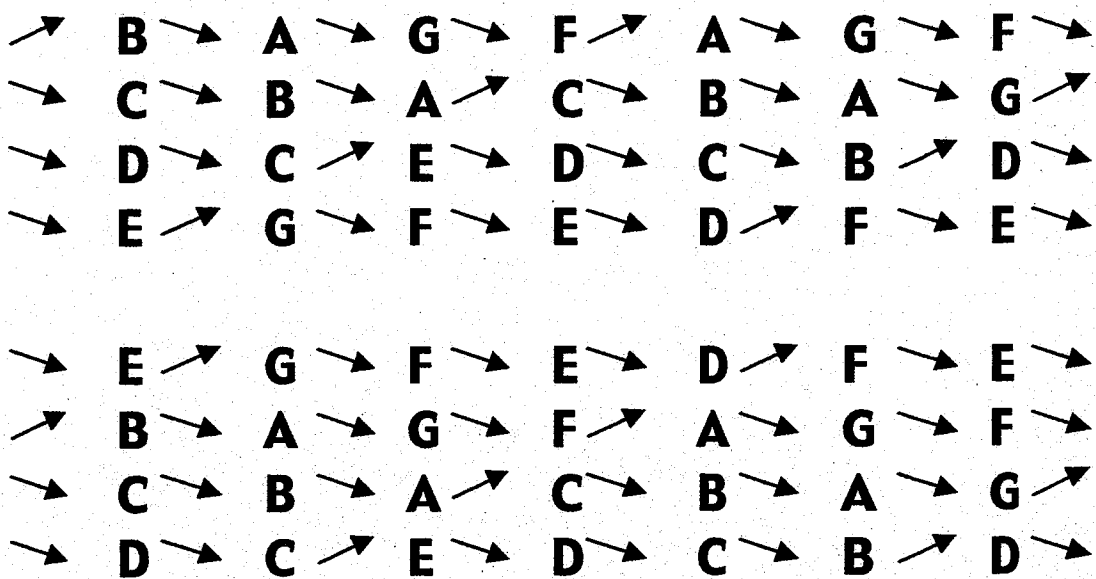
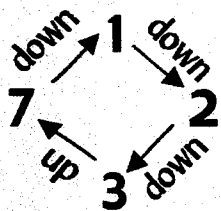
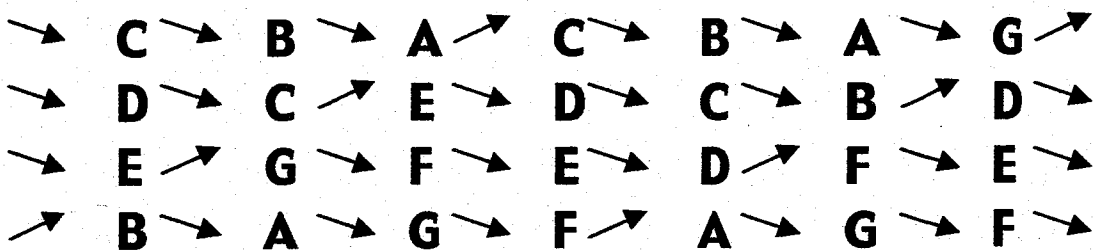
**Intervallic
 Voice-Leading**

2 → 2nd
 3 → 3rd
 7 → 2nd
 1 → 2nd



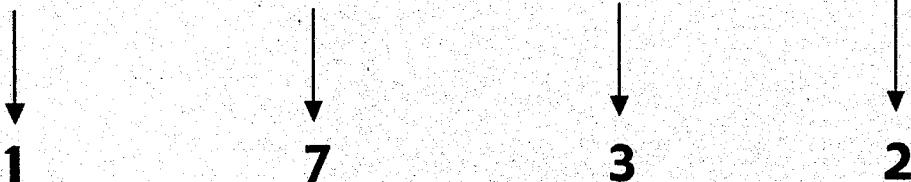
**Functional
 Voice-Leading**

2 → 3
 3 → 7
 7 → 1
 1 → 2



M.S.R.P. C B A C B

||: C B A C B A G B A G F A G F E G F E D F E D C E D C B D :||



Chord Family: Spread Clusters

Cycle: 7

Scale: C major

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd

**Functional
Voice-Leading**

7 → 7

3 → 3

2 → 2

1 → 1



→ B	→ A	→ G	→ F	→ E	→ D	→ C	→
• → E	→ D	→ C	→ B	→ A	→ G	→ F	→ •
• → D	→ C	→ B	→ A	→ G	→ F	→ E	→ •
→ C	→ B	→ A	→ G	→ F	→ E	→ D	→
→ C	→ B	→ A	→ G	→ F	→ E	→ D	→
• → B	→ A	→ G	→ F	→ E	→ D	→ C	→ •
• → E	→ D	→ C	→ B	→ A	→ G	→ F	→ •
→ D	→ C	→ B	→ A	→ G	→ F	→ E	→
→ D	→ C	→ B	→ A	→ G	→ F	→ E	→
• → C	→ B	→ A	→ G	→ F	→ E	→ D	→ •
• → B	→ A	→ G	→ F	→ E	→ D	→ C	→ •
→ E	→ D	→ C	→ B	→ A	→ G	→ F	→
→ E	→ D	→ C	→ B	→ A	→ G	→ F	→
• → D	→ C	→ B	→ A	→ G	→ F	→ E	→ •
• → C	→ B	→ A	→ G	→ F	→ E	→ D	→ •
→ B	→ A	→ G	→ F	→ E	→ D	→ C	→
→ E	→ D	→ C	→ B	→ A	→ G	→ F	→
→ E	→ D	→ C	→ B	→ A	→ G	→ F	→
• → D	→ C	→ B	→ A	→ G	→ F	→ E	→ •
• → C	→ B	→ A	→ G	→ F	→ E	→ D	→ •
→ B	→ A	→ G	→ F	→ E	→ D	→ C	→

Chord Family: Spread Clusters

Cycle: 7

Scale: C major

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 — c.t.

7 — c.t.

3 ↗ 4th

1 — c.t.

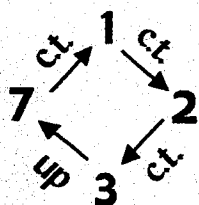
**Functional
Voice-Leading**

2 — 3

7 — 1

3 ↗ 7

1 — 2



—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
• ↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—
• —	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—

M.S.R.P. **CCCFF**

||: C C C F F F B B B E E E E A A A D D D G G G G C :||

↓
1

↓
7

↓
3

↓
2

Chord Family: Spread Clusters

Cycle: 7

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 4th

2 — c.t.

7 — c.t.

1 — c.t.

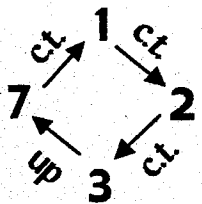
**Functional
Voice-Leading**

3 → 7

2 — 3

7 — 1

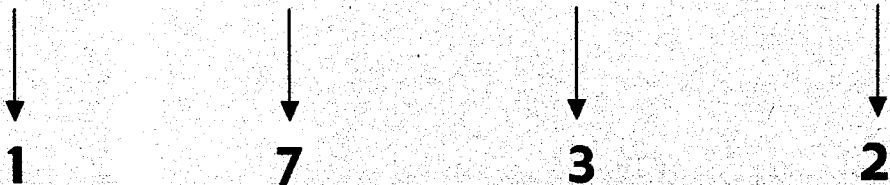
1 — 2



—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—	
•	—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
•	↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗	
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—	
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗	
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—	
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—	
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗	
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—	
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—	
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—	
↗	B	—	B	—	B	—	B	↗	E	—	E	—	E	—	
—	E	↗	A	—	A	—	A	—	A	↗	D	—	D	—	
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗	
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—	

M.S.R.P. **CCCFF**

||: CCC FFF BBB BEEEE AAA ADD DD GGG GC :||



Chord Family: Spread Clusters

Cycle: 7

Scale: C major

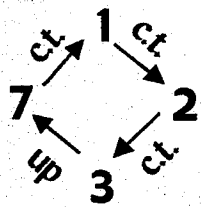
Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 — c.t.
2 — c.t.
3 ↗ 4th
1 — c.t.

**Functional
Voice-Leading**

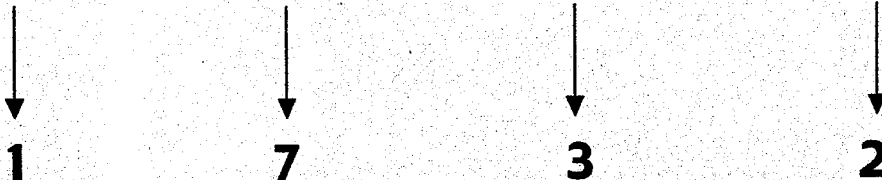
7 — 1
2 — 3
3 ↗ 7
1 — 2



↗ B	— B	— B	— B	↗ E	— E	— E	—
• — D	— D	↗ G	— G	— G	— G	↗ C	—
• — E	↗ A	— A	— A	— A	↗ D	— D	—
— C	— C	— C	↗ F	— F	— F	— F	↗
— E	↗ A	— A	— A	— A	↗ D	— D	—
— C	— C	— C	↗ F	— F	— F	— F	↗
— D	— D	↗ G	— G	— G	— G	↗ C	—
↗ B	— B	— B	— B	↗ E	— E	— E	—
— D	— D	↗ G	— G	— G	— G	↗ C	—
↗ B	— B	— B	— B	↗ E	— E	— E	—
— C	— C	— C	↗ F	— F	— F	— F	↗
— E	↗ A	— A	— A	— A	↗ D	— D	—
— C	— C	— C	↗ F	— F	— F	— F	↗
— E	↗ A	— A	— A	— A	↗ D	— D	—
↗ B	— B	— B	— B	↗ E	— E	— E	—
— D	— D	↗ G	— G	— G	— G	↗ C	—

M.S.R.P. **CCCFF**

||: CCCFFFB BBBEEEA AAADD DDGGGC :||



Chord Family: Spread Clusters

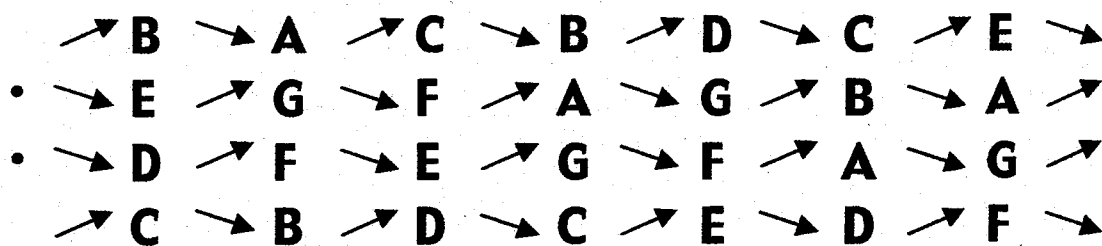
Cycle: 5

Scale: C major

Voicing Type: 4-way close

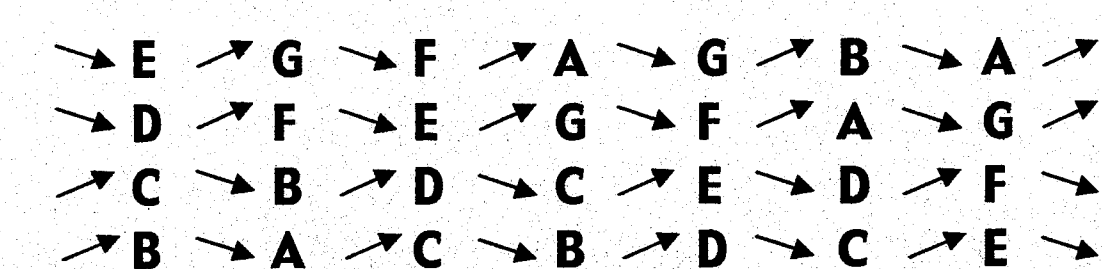
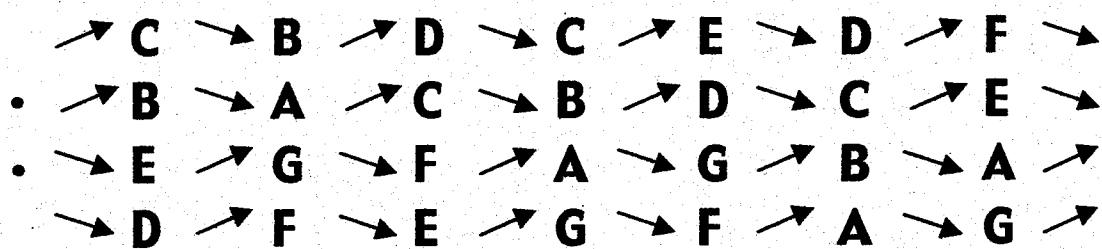
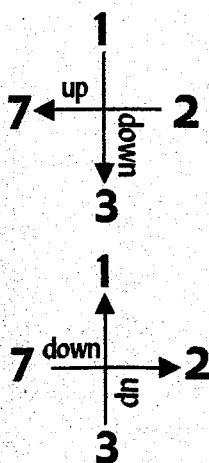
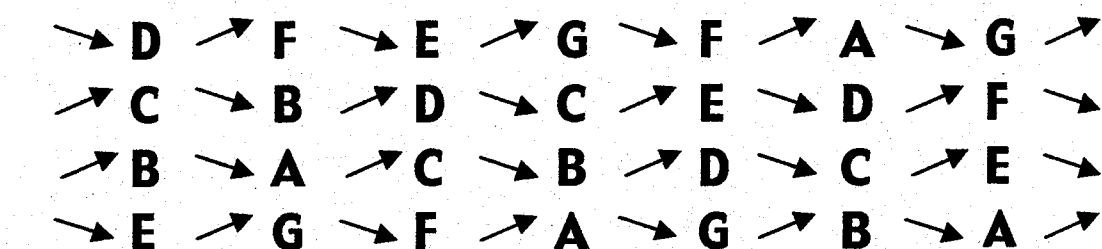
**Intervallic
Voice-Leading**

7 → 2nd
3 → 3rd
2 → 3rd
1 → 2nd



**Functional
Voice-Leading**

7 → 2
3 → 1
2 → 7
1 → 3



M.S.R.P. 1) $\overbrace{C B D C E}$ 2) $\overbrace{D F E G F}$

1) $\parallel : C B D C E D F E G F A G B A : \parallel$ 2) $\parallel : D F E G F A G B A C B D C E : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 5

Scale: C major

Voicing Type: Drop 2

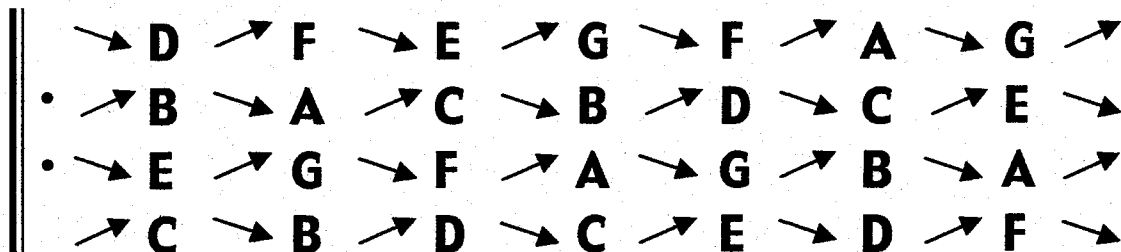
**Intervallic
Voice-Leading**

2 → 3rd

7 → 2nd

3 → 3rd

1 → 2nd



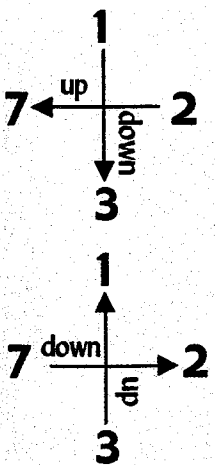
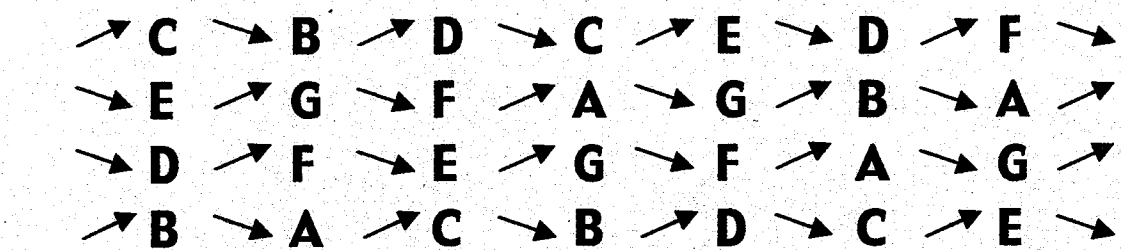
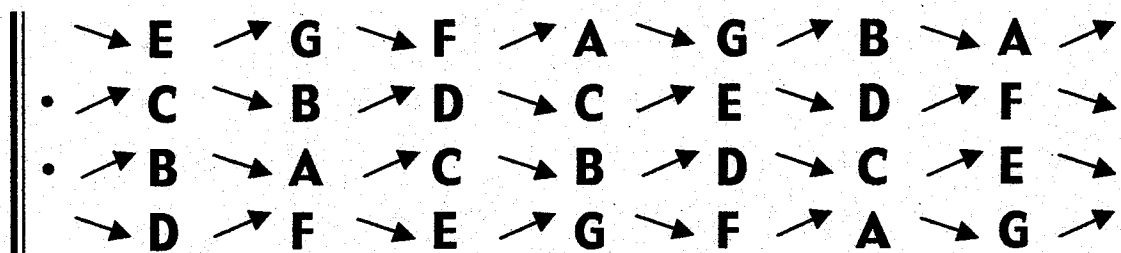
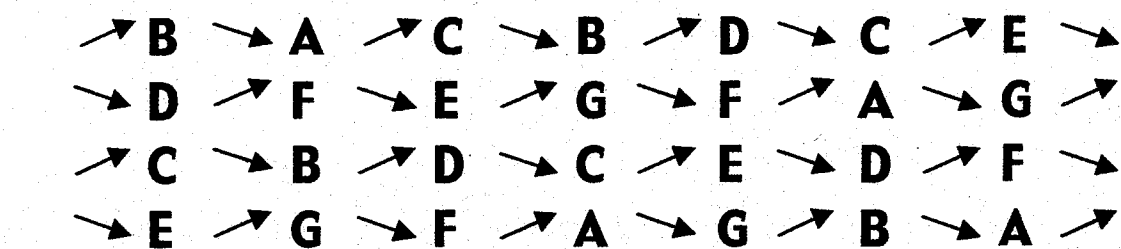
**Functional
Voice-Leading**

2 → 7

7 → 2

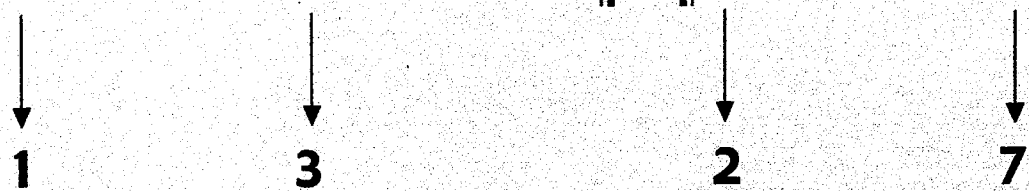
3 → 1

1 → 3



M.S.R.P. 1) $\overbrace{C B D C E}$ 2) $\overbrace{D F E G F}$

1) $\parallel: C B D C E D F E G F A G B A: \parallel$ 2) $\parallel: D F E G F A G B A C B D C E: \parallel$



Chord Family: Spread Clusters

Cycle: 5

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 3rd
2 → 3rd
7 → 2nd
1 → 2nd

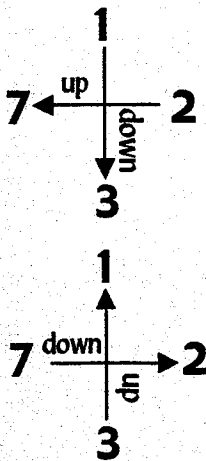
→	E	→	G	→	F	→	A	→	G	→	B	→	A	→	
•	→	D	→	F	→	E	→	G	→	F	→	A	→	G	→
•	→	B	→	A	→	C	→	B	→	D	→	C	→	E	→
→	C	→	B	→	D	→	C	→	E	→	D	→	F	→	

→	C	→	B	→	D	→	C	→	E	→	D	→	F	→	
→	B	→	A	→	C	→	B	→	D	→	C	→	E	→	•
→	D	→	F	→	E	→	G	→	F	→	A	→	G	→	•
→	E	→	G	→	F	→	A	→	G	→	B	→	A	→	

**Functional
Voice-Leading**

3 → 1
2 → 7
7 → 2
1 → 3

→	B	→	A	→	C	→	B	→	D	→	C	→	E	→	
•	→	E	→	G	→	F	→	A	→	G	→	B	→	A	→
•	→	C	→	B	→	D	→	C	→	E	→	D	→	F	→
→	D	→	F	→	E	→	G	→	F	→	A	→	G	→	



→	D	→	F	→	E	→	G	→	F	→	A	→	G	→	•
→	C	→	B	→	D	→	C	→	E	→	D	→	F	→	•
→	E	→	G	→	F	→	A	→	G	→	B	→	A	→	•
→	B	→	A	→	C	→	B	→	D	→	C	→	E	→	•

M.S.R.P. 1) $\overbrace{C B D C E}$ 2) $\overbrace{D F E G F}$

1) $\parallel : C B D C E D F E G F A G B A : \parallel$ 2) $\parallel : D F E G F A G B A C B D C E : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

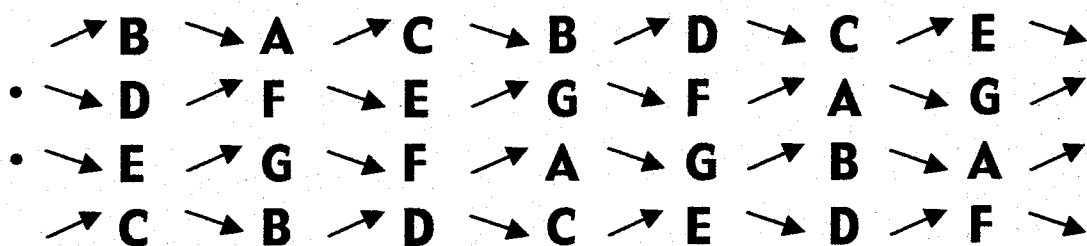
Cycle: 5

Scale: C major

Voicing Type: Drop 2 & 4

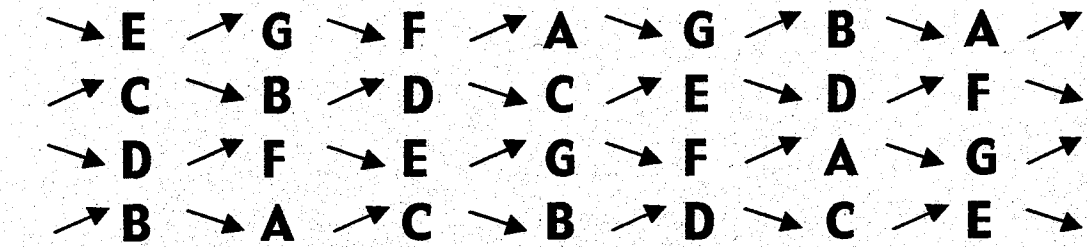
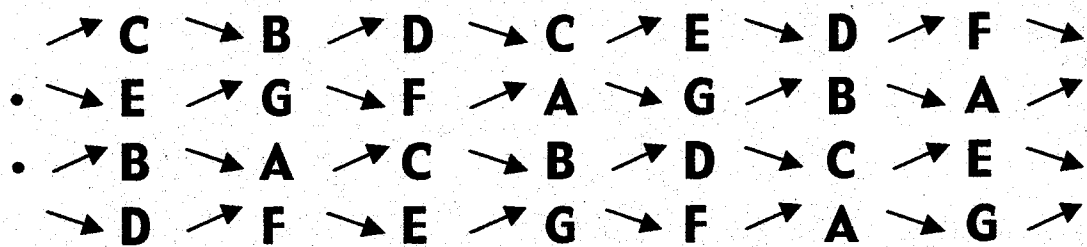
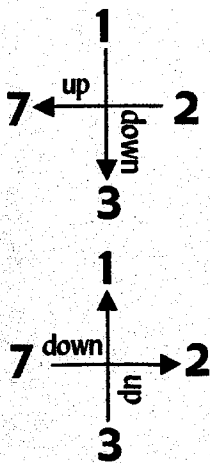
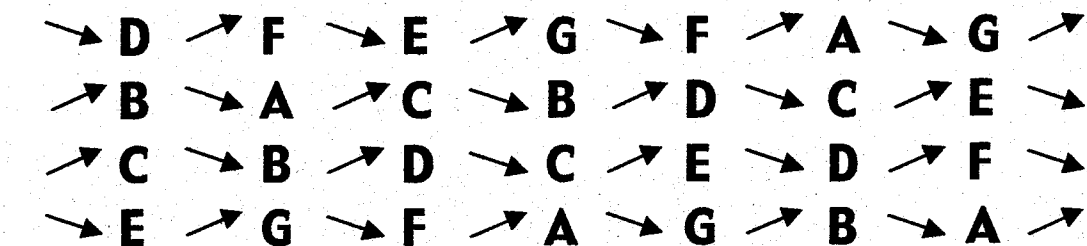
**Intervallic
Voice-Leading**

7 → 2nd
2 → 3rd
3 → 3rd
1 → 2nd



**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3



M.S.R.P. 1) $\overbrace{C B D C E}$ 2) $\overbrace{D F E G F}$

1) $\parallel : C B D C E D F E G F A G B A : \parallel$ 2) $\parallel : D F E G F A G B A C B D C E : \parallel$



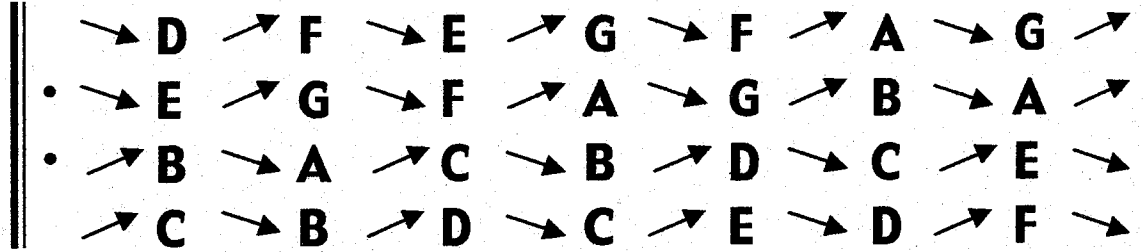
Chord Family: Spread Clusters
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 5

Scale: C major

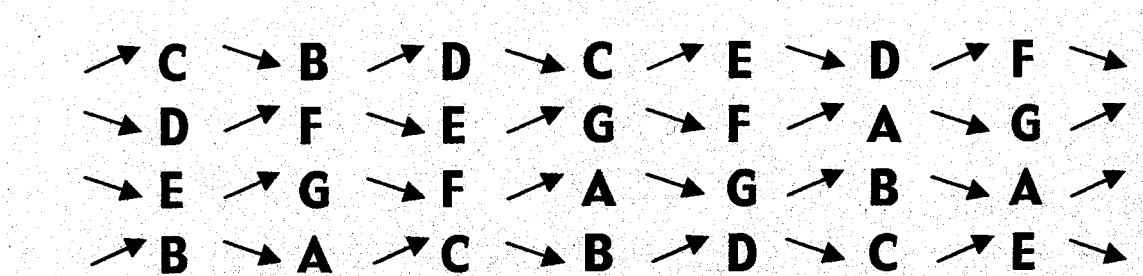
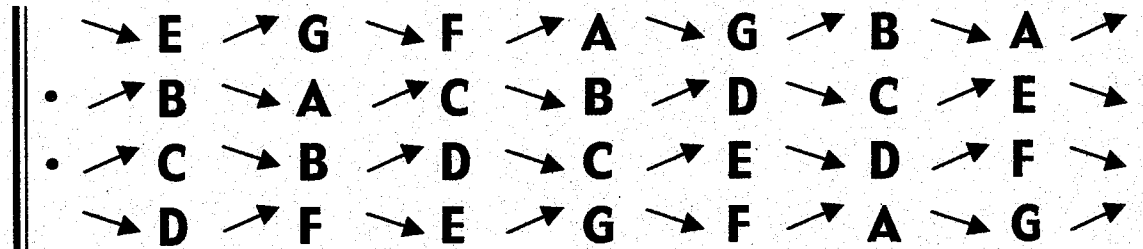
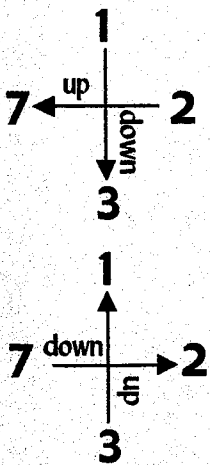
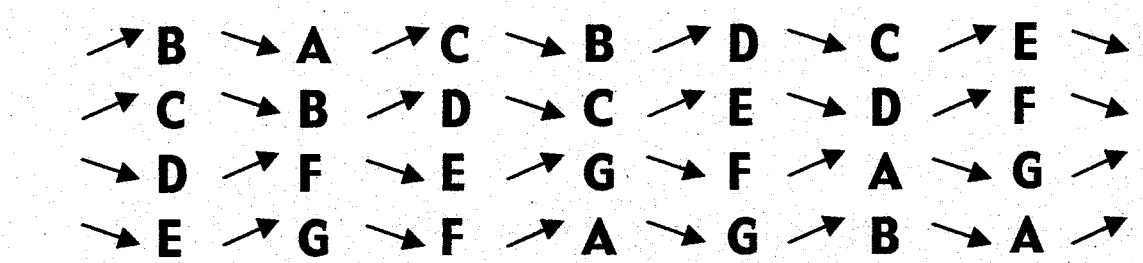
**Intervallic
 Voice-Leading**

2 → 3rd
 3 → 3rd
 7 → 2nd
 1 → 2nd



**Functional
 Voice-Leading**

2 → 7
 3 → 1
 7 → 2
 1 → 3



M.S.R.P. 1) $\overbrace{C B D C E}$ 2) $\overbrace{D F E G F}$

1) $\parallel : C B D C E D F E G F A G B A : \parallel$ 2) $\parallel : D F E G F A G B A C B D C E : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 3

Scale: C major

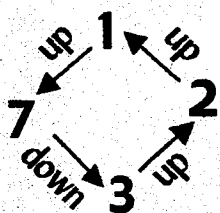
Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 2nd

**Functional
Voice-Leading**

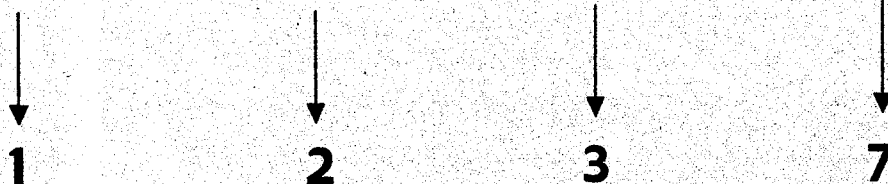
7 → 3
3 → 2
2 → 1
1 → 7



→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
•	E	→	F	→	G	→	A	→	F	→	G	→	A	→
•	D	→	E	→	F	→	D	→	E	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E	→	C	→
→	C	→	D	→	B	→	C	→	D	→	E	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	E	→	F	→	G	→	A	→	F	→	G	→	A	→
→	D	→	E	→	F	→	D	→	E	→	F	→	G	→
→	D	→	E	→	F	→	D	→	E	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	E	→	F	→	G	→	A	→	F	→	G	→	A	→
→	E	→	F	→	G	→	A	→	F	→	G	→	A	→
→	D	→	E	→	F	→	D	→	E	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→

M.S.R.P. C D B C D

||: C D B C D E C D E F D E F G E F G A F G A B G A B C A B :||



Chord Family: Spread Clusters

Cycle: 3

Scale: C major

Voicing Type: Drop 2

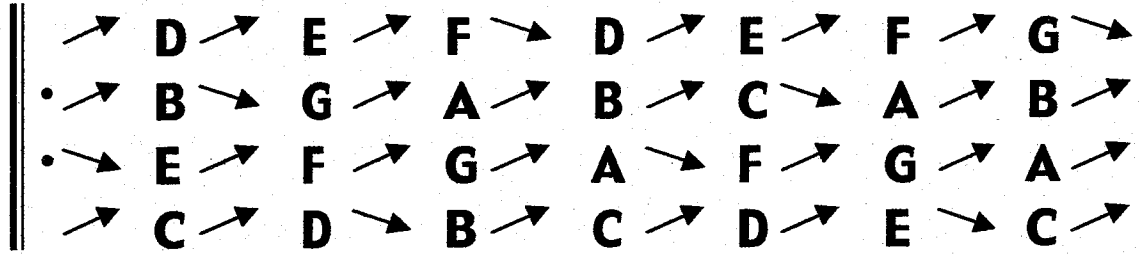
**Intervallic
Voice-Leading**

2 → 2nd

7 → 3rd

3 → 2nd

1 → 2nd



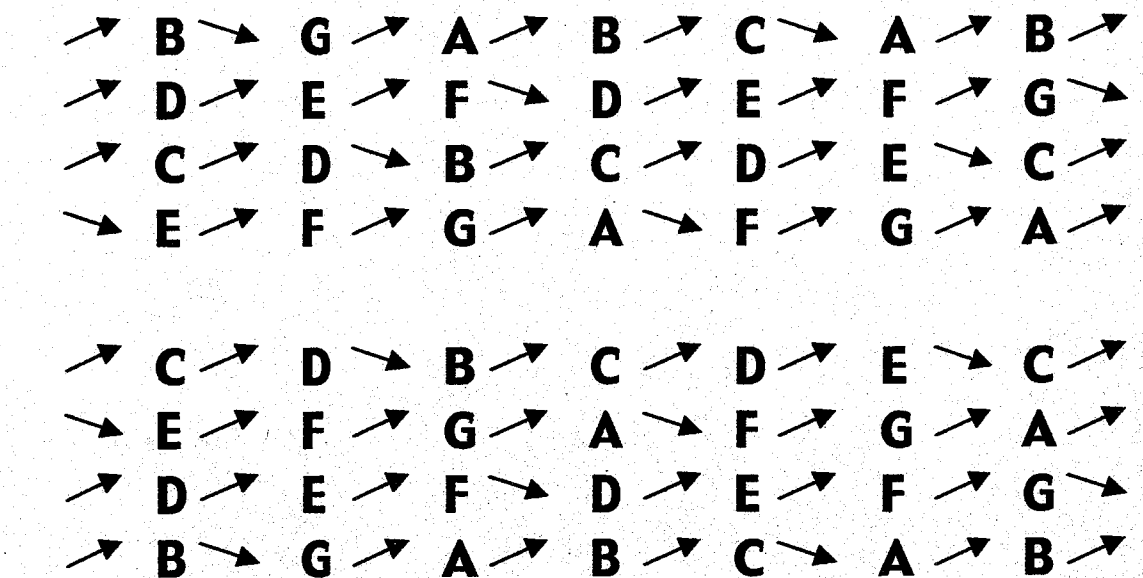
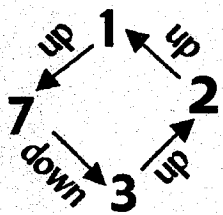
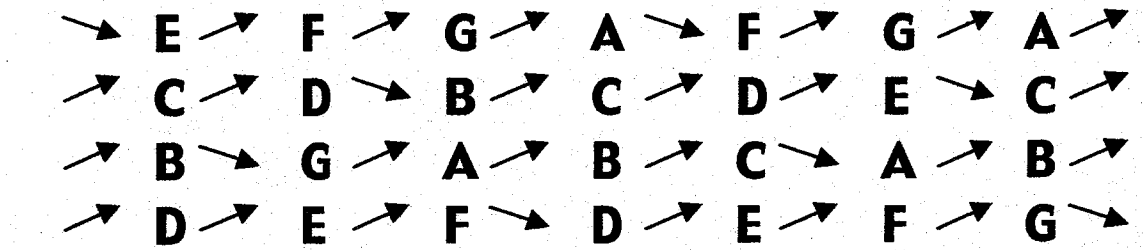
**Functional
Voice-Leading**

2 → 1

7 → 3

3 → 2

1 → 7



M.S.R.P. **C D B C D**

||: C D B C D E C D E F D E F G E F G A F G A B G A B C A B :||

1

2

3

7

Chord Family: Spread Clusters

Cycle: 3

Scale: C major

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 2nd
2 → 2nd
7 ↘ 3rd
1 → 2nd

→	E	→	F	→	G	→	A	→	F	→	G	→	A	
•	→	D	→	E	→	F	→	D	→	E	→	F	→	G
•	→	B	→	G	→	A	→	B	→	C	→	A	→	B
→	C	→	D	→	B	→	C	→	D	→	E	→	C	

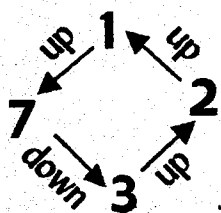
→	B	→	G	→	A	→	B	→	C	→	A	→	B
→	E	→	F	→	G	→	A	→	F	→	G	→	A
→	C	→	D	→	B	→	C	→	D	→	E	→	C
→	D	→	E	→	F	→	D	→	E	→	F	→	G

**Functional
Voice-Leading**

3 → 2
2 → 1
7 ↘ 3
1 → 7

→	C	→	D	→	B	→	C	→	D	→	E	→	C
→	B	→	G	→	A	→	B	→	C	→	A	→	B
→	D	→	E	→	F	→	D	→	E	→	F	→	G
→	E	→	F	→	G	→	A	→	F	→	G	→	A

→	D	→	E	→	F	→	D	→	E	→	F	→	G
→	C	→	D	→	B	→	C	→	D	→	E	→	C
→	E	→	F	→	G	→	A	→	F	→	G	→	A
→	B	→	G	→	A	→	B	→	C	→	A	→	B



M.S.R.P. C D B C D

||: C D B C D E C D E F D E F G E F G A F G A B G A B C A B :||

↓		↓		↓		↓
1		2		3		7

Chord Family: Spread Clusters

Cycle: 3

Scale: C major

Voicing Type: Drop 2 & 3

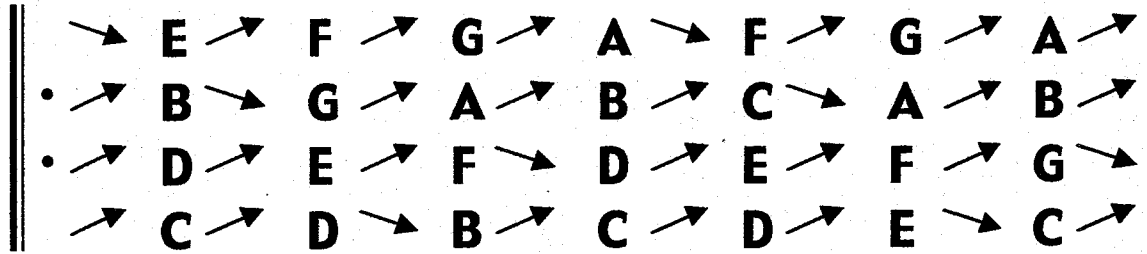
**Intervallic
Voice-Leading**

3 → 2nd

7 → 3rd

2 → 2nd

1 → 2nd



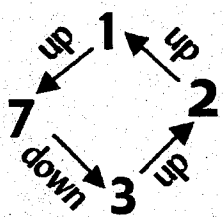
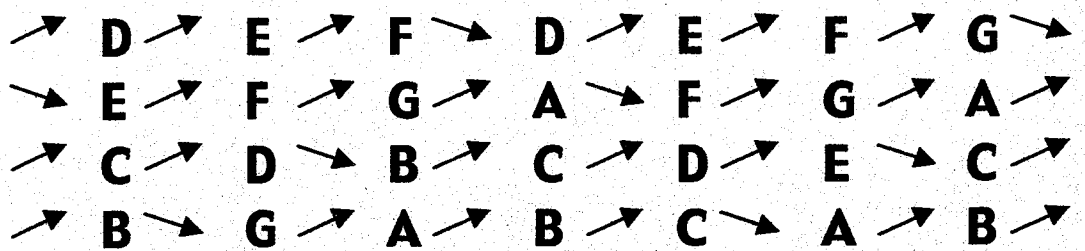
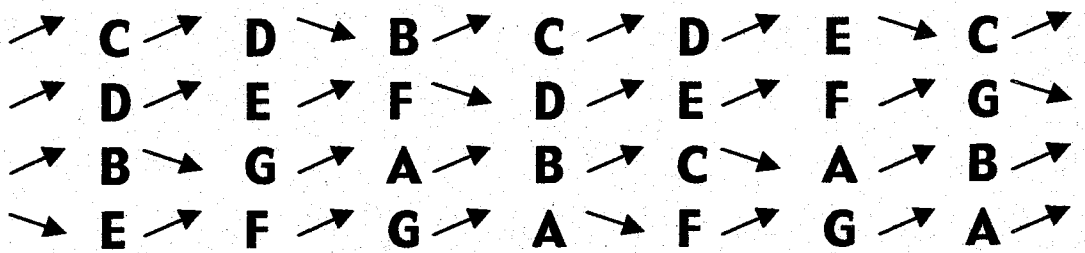
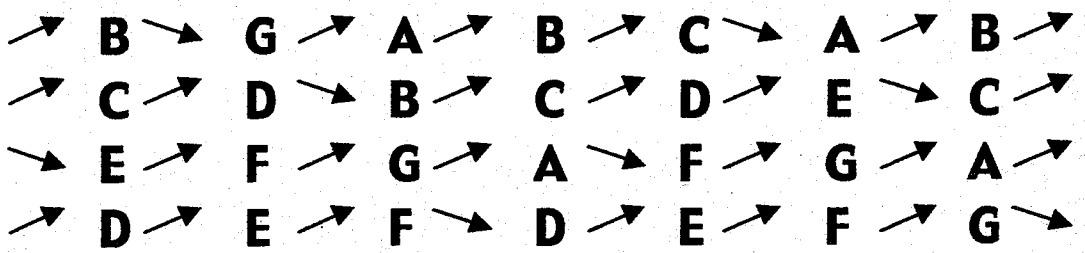
**Functional
Voice-Leading**

3 → 2

7 → 3

2 → 1

1 → 7



M.S.R.P. **C D B C D**

:C D B C D E C D E F D E F G E F G A F G A B G A B C A B:

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

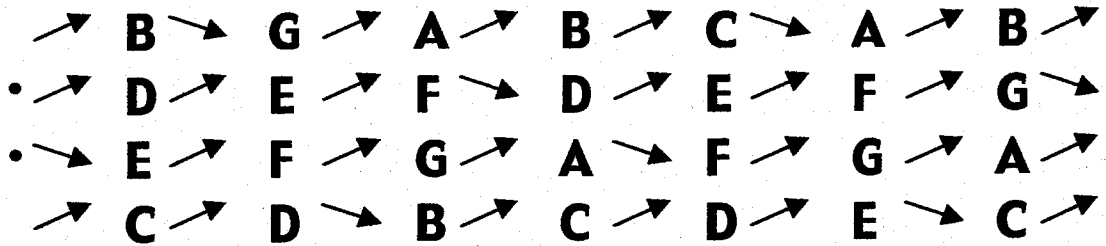
Cycle: 3

Scale: C major

Voicing Type: Drop 2 & 4

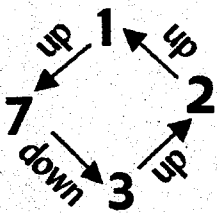
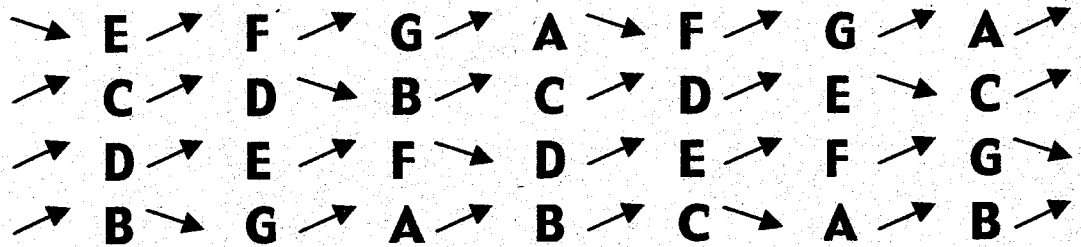
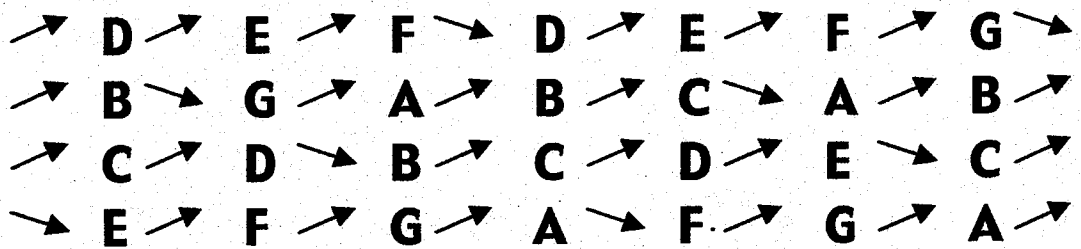
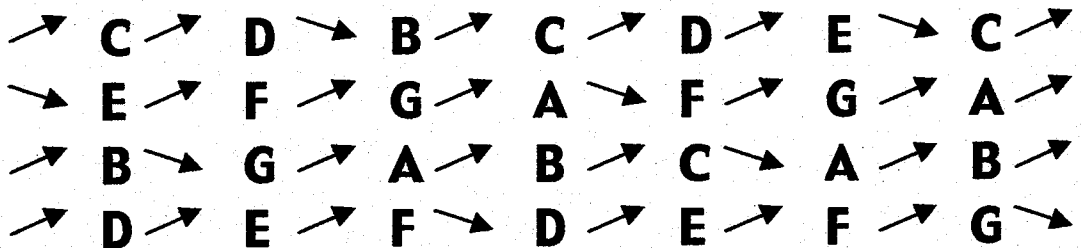
**Intervallic
Voice-Leading**

7 → 3rd
2 → 2nd
3 → 2nd
1 → 2nd



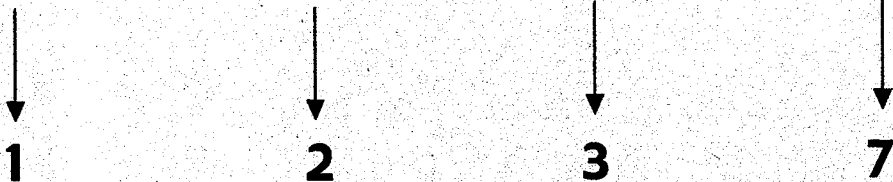
**Functional
Voice-Leading**

7 → 3
2 → 1
3 → 2
1 → 7



M.S.R.P. **C D B C D**

||: C D B C D E C D E F D E F G E F G A F G A B G A B C A B :||



Chord Family: Spread Clusters

Cycle: 3

Scale: C major

Voicing Type: Double Drop 2,
Drop 3

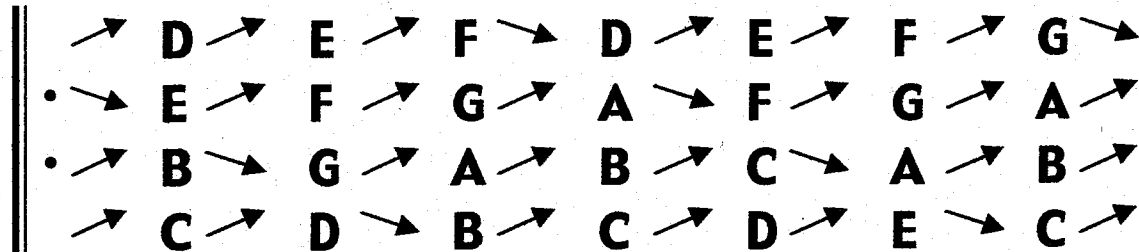
**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 ↘ 3rd

1 → 2nd



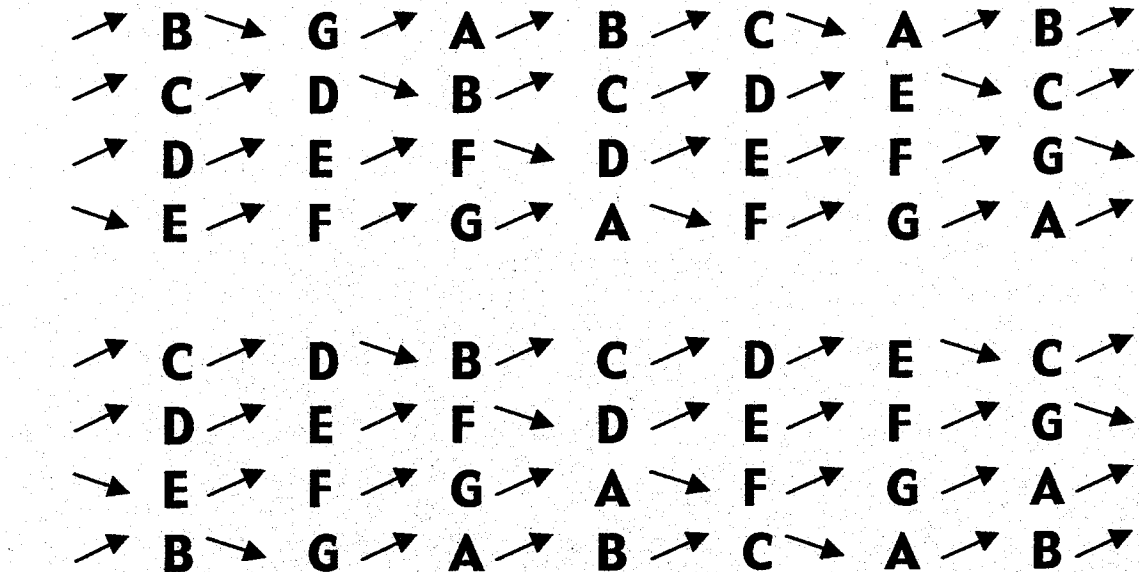
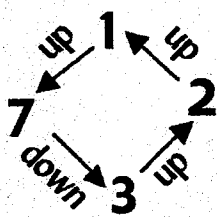
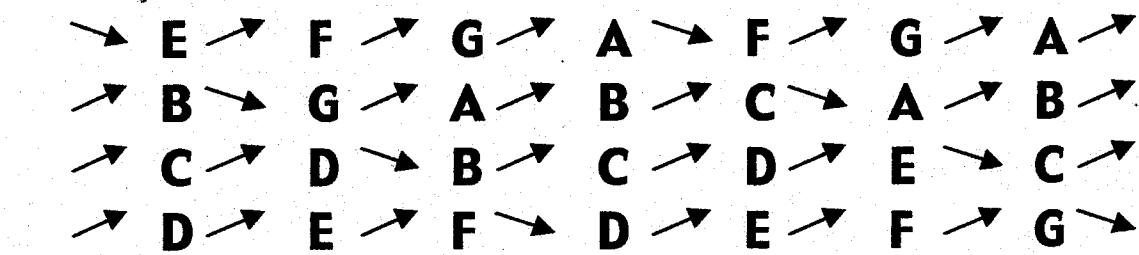
**Functional
Voice-Leading**

2 → 1

3 → 2

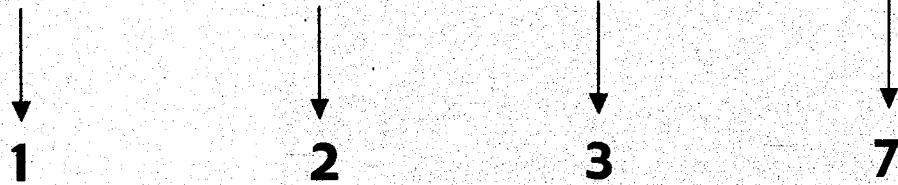
7 ↘ 3

1 → 7



M.S.R.P. **C D B C D**

||: C D B C D E C D E F D E F G E F G A F G A B G A B C A B :||



SPREAD CLUSTERS
ALL VOICINGS
ALL CYCLES
C MELODIC MINOR

Chord Family: Spread Clusters

Cycle: 2

Scale: C melodic minor

Voicing Type: 4-way close

Intervallic

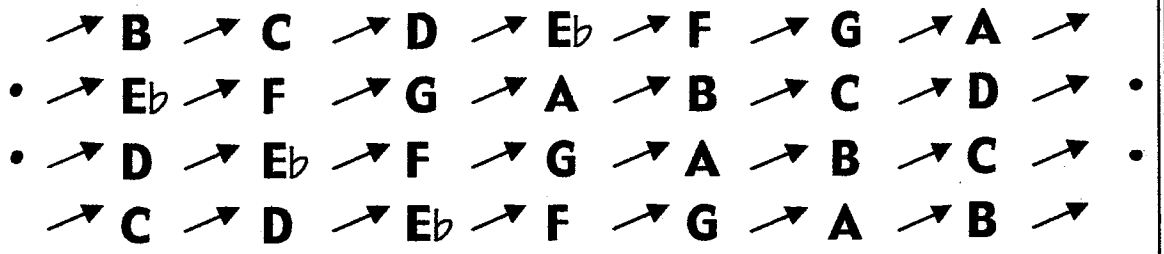
Voice-Leading

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd



Functional

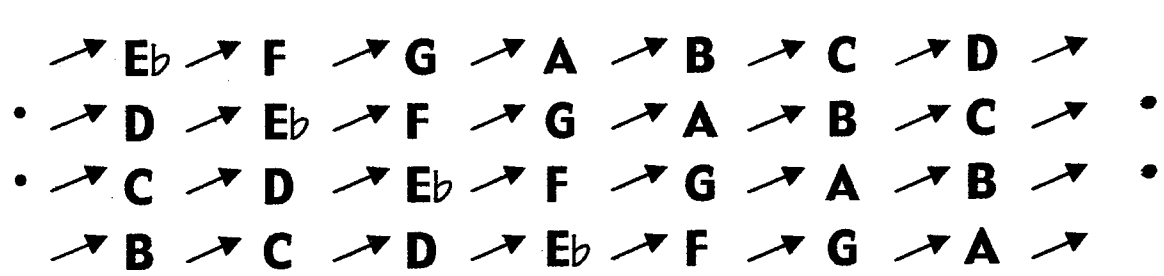
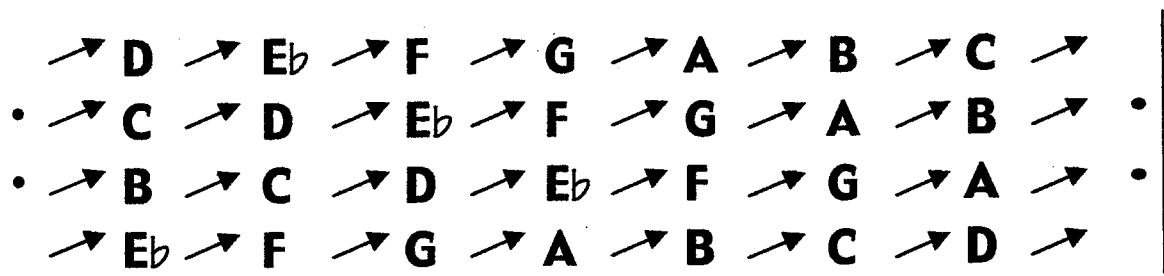
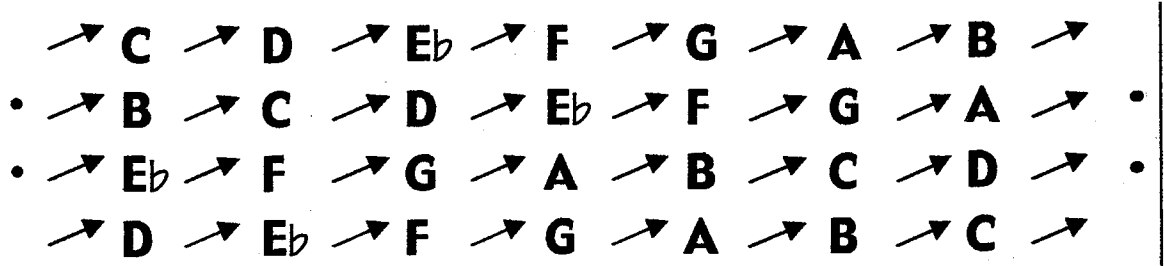
Voice-Leading

7 → 7

3 → 3

2 → 2

1 → 1



Chord Family: Spread Clusters

Cycle: 2

Scale: C melodic minor

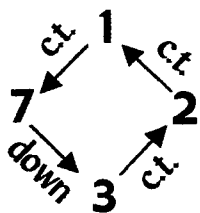
Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 — c.t.
2 — c.t.
7 → 4th
1 — c.t.

**Functional
Voice-Leading**

3 — 2
2 — 1
7 → 3
1 — 7



→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
•	—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
•	—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	

M.S.R.P. C C G G G

||: C C G G G G D D D A A A A E_b E_b E_b E_b B B B B F F F F C C :||



Chord Family: Spread Clusters

Cycle: 2

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 4th

2 — c.t.

3 — c.t.

1 — c.t.

—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
•	—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
•	→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	

**Functional
Voice-Leading**

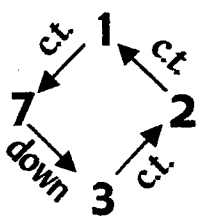
7 → 3

2 — 1

3 — 2

1 — 7

—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—
—	D	—	D	—	D	→	A	—	A	—	A	—	A	→
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—



M.S.R.P. **CCGGG**

CCGGGGDDDDAAAEE_bE_bE_bE_bBBBBFFFFCC



Chord Family: Spread Clusters

Cycle: 4

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 3rd

→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→	
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
•	→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	

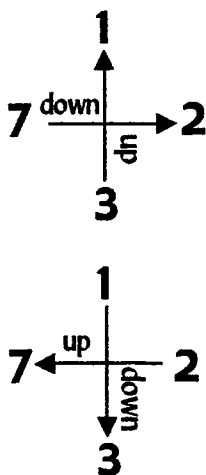
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

**Functional
Voice-Leading**

7 → 2
3 → 1
2 → 7
1 → 3

→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	
•	→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→	

→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→



M.S.R.P. 1) C A B G A 2) D E_b C D B

1) ||: C A B G A F G E_b F D E_b C D B :|| 2) ||: D E_b C D B C A B G A F G E_b F :||

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 2

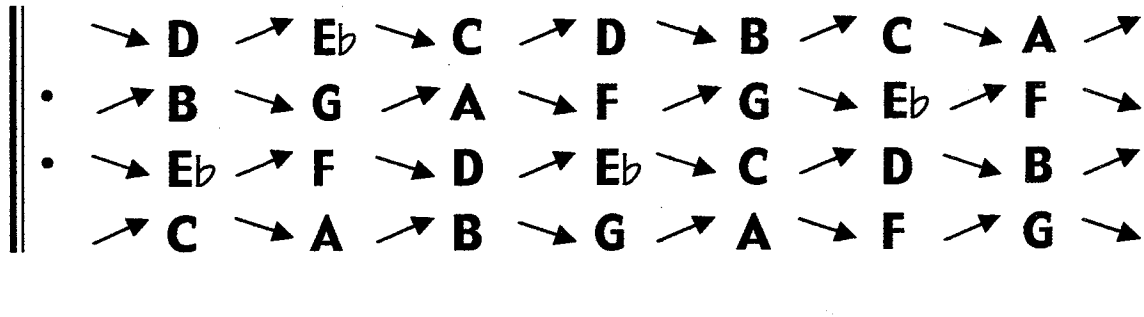
**Intervallic
Voice-Leading**

2 → 2nd

7 → 3rd

3 → 2nd

1 → 3rd



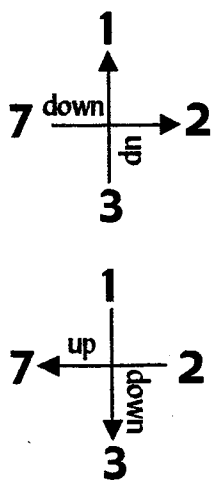
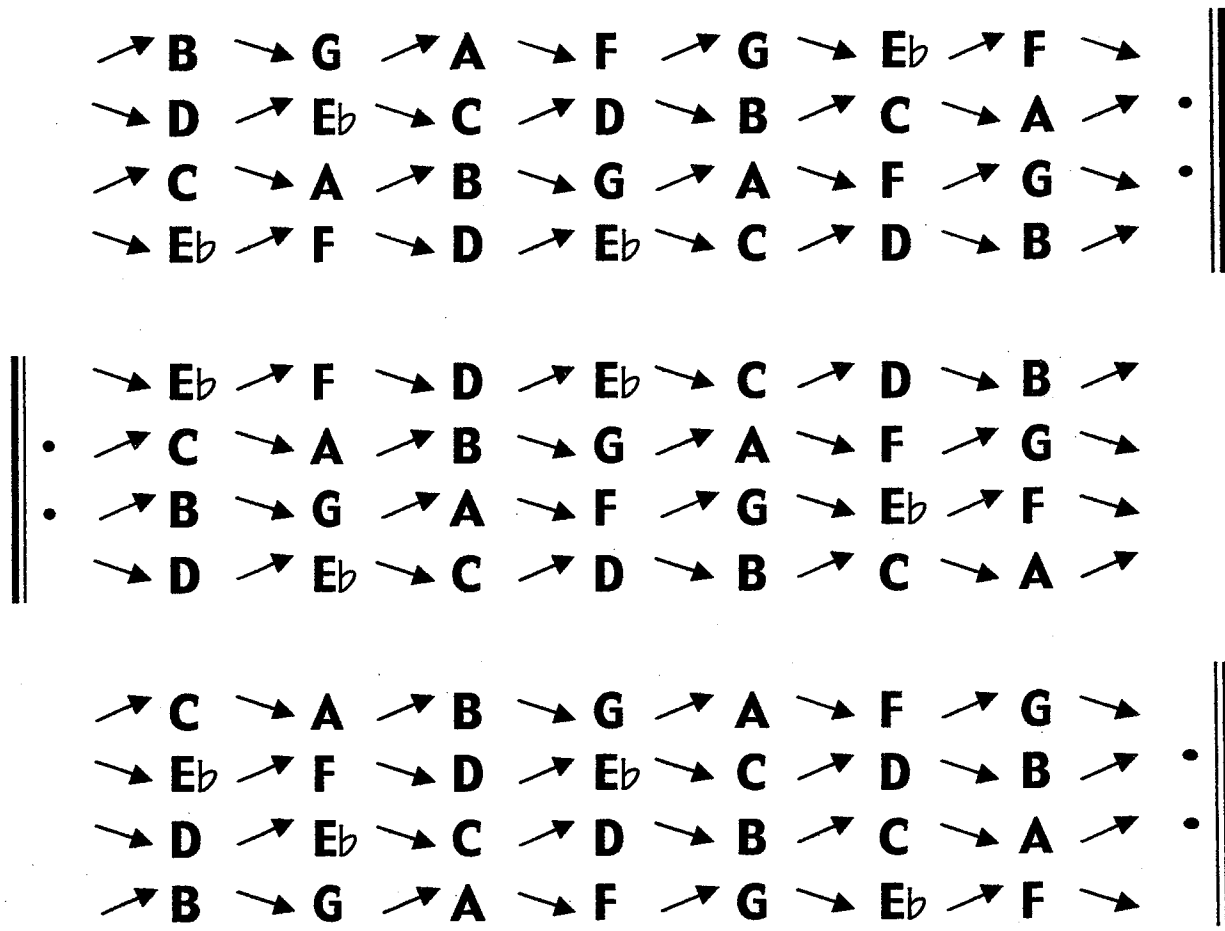
**Functional
Voice-Leading**

2 → 7

7 → 2

3 → 1

1 → 3



M.S.R.P. 1) **C A B G A** 2) **D E^b C D B**

1) **||: C A B G A F G E^b F D E^b C D B: ||** 2) **||: D E^b C D B C A B G A F G E^b F: ||**

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

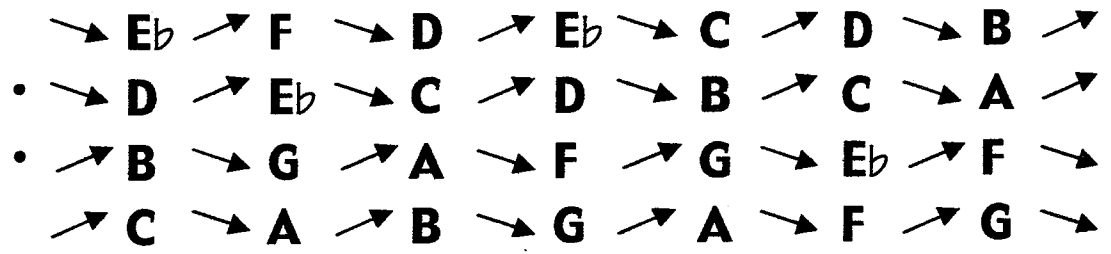
Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 3

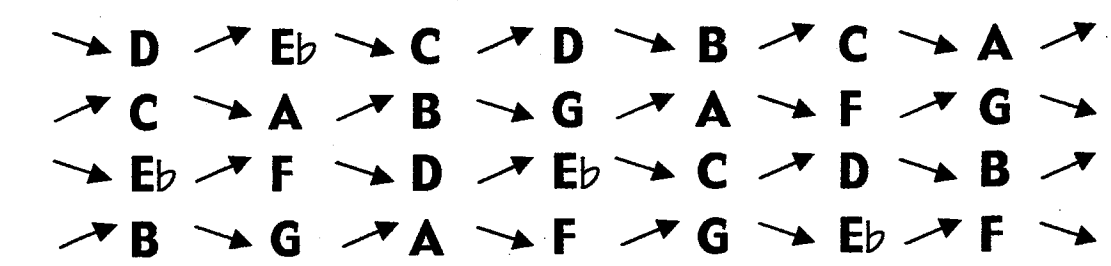
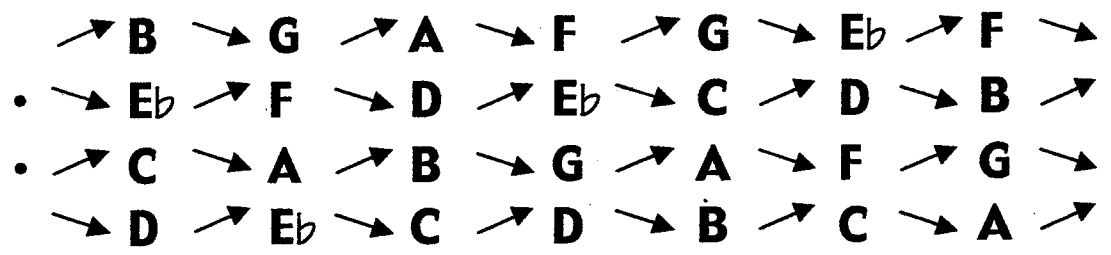
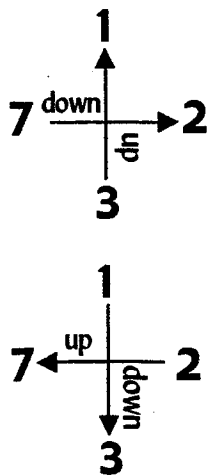
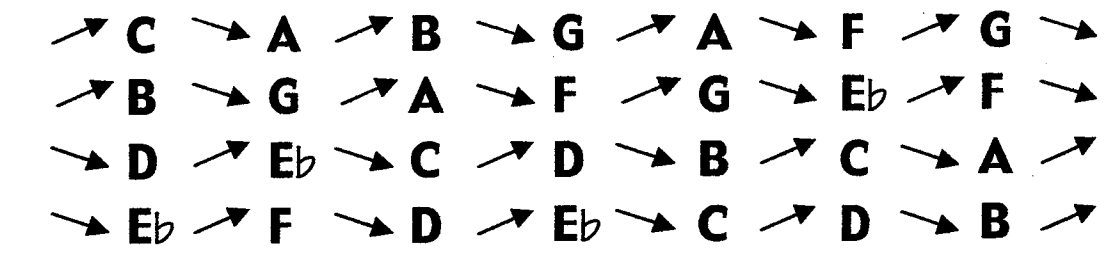
**Intervallic
Voice-Leading**

3 → 2nd
2 → 2nd
7 → 3rd
1 → 3rd



**Functional
Voice-Leading**

3 → 1
2 → 7
7 → 2
1 → 3



M.S.R.P. 1) CABGA 2) DE^bCDB

1) ||: CA BGA FG Eb F DE^b CDB: || 2) ||: DE^b C DBCA BGA FG Eb F: ||



Chord Family: Spread Clusters

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 2 & 3

Intervallic

Voice-Leading

3 → 2nd

7 → 3rd

2 → 2nd

1 → 3rd

→ Eb	→ F	→ D	→ Eb	→ C	→ D	→ B	→
• → B	→ G	→ A	→ F	→ G	→ Eb	→ F	→
• → D	→ Eb	→ C	→ D	→ B	→ C	→ A	→
→ C	→ A	→ B	→ G	→ A	→ F	→ G	→

→ C	→ A	→ B	→ G	→ A	→ F	→ G	→
→ D	→ Eb	→ C	→ D	→ B	→ C	→ A	→
→ B	→ G	→ A	→ F	→ G	→ Eb	→ F	→
→ Eb	→ F	→ D	→ Eb	→ C	→ D	→ B	→

Functional

Voice-Leading

3 → 1

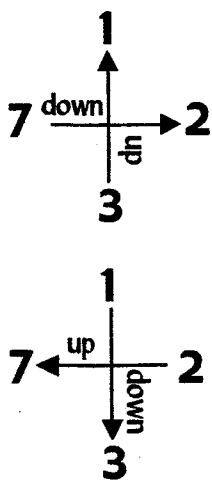
7 → 2

2 → 7

1 → 3

→ B	→ G	→ A	→ F	→ G	→ Eb	→ F	→
• → C	→ A	→ B	→ G	→ A	→ F	→ G	→
• → Eb	→ F	→ D	→ Eb	→ C	→ D	→ B	→
→ D	→ Eb	→ C	→ D	→ B	→ C	→ A	→

→ D	→ Eb	→ C	→ D	→ B	→ C	→ A	→
→ Eb	→ F	→ D	→ Eb	→ C	→ D	→ B	→
→ C	→ A	→ B	→ G	→ A	→ F	→ G	→
→ B	→ G	→ A	→ F	→ G	→ Eb	→ F	→



M.S.R.P. 1) CABGA 2) DE^bCDB

1) ||: CABGA FGE^bFDE^bCDB:| 2) ||: DE^bCDBCABGA FGE^bF:|



Chord Family: Spread Clusters

Cycle: 4

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd
2 → 2nd
3 → 2nd
1 → 3rd

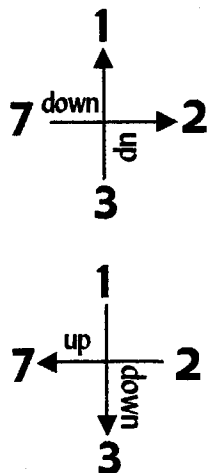
→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→	
•	→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	

→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→
→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→
→	C	→	A	→	B	→	G	→	A	→	F	→	G	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3

→	C	→	A	→	B	→	G	→	A	→	F	→	G	→	
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
•	→	B	→	G	→	A	→	F	→	G	→	E _b	→	F	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A	→	



M.S.R.P.

1) C A B G A

2) D E_b C D B

1) ||: C A B G A F G E_b F D E_b C D B :|| 2) ||: D E_b C D B C A B G A F G E_b F :||

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

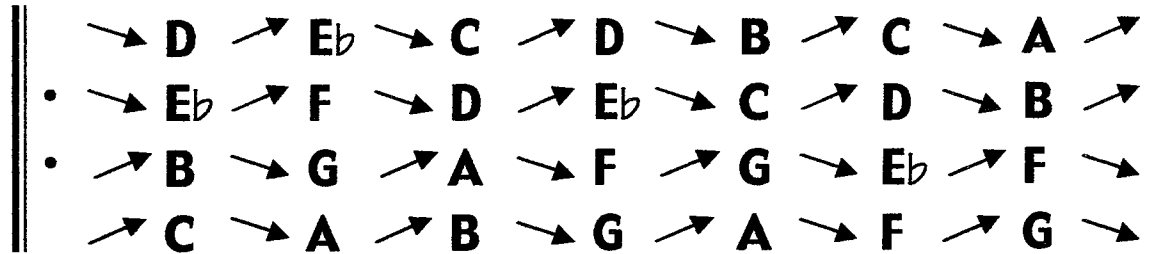
**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 → 3rd

1 → 3rd



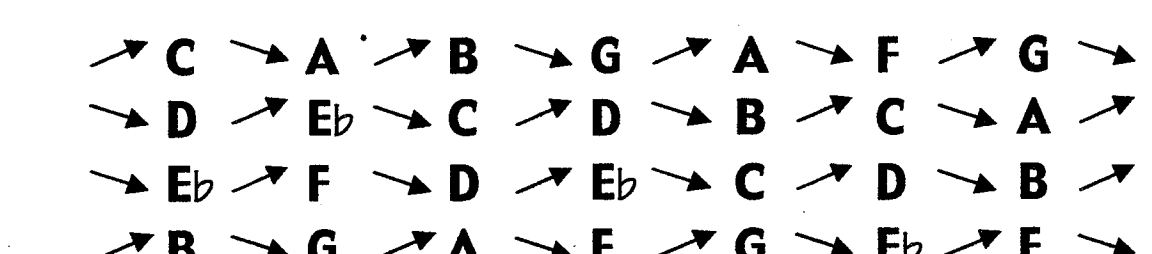
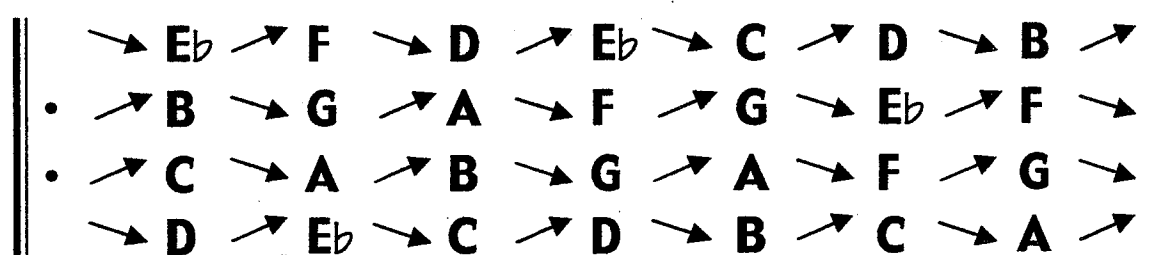
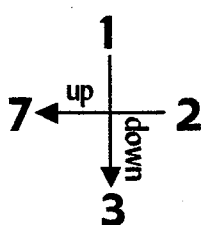
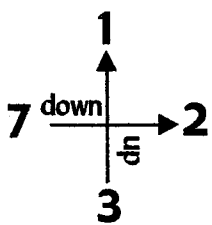
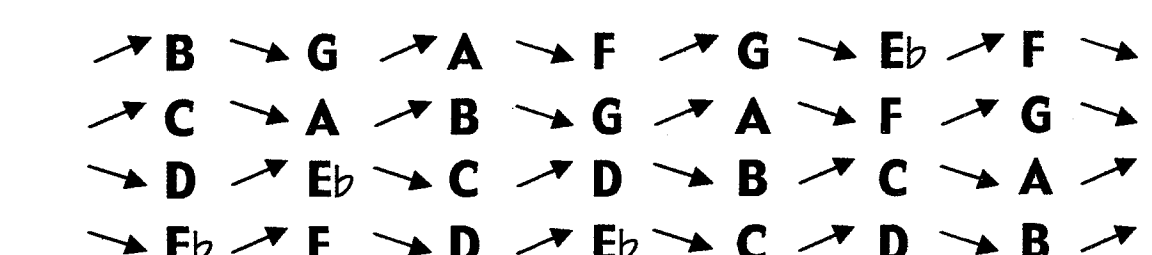
**Functional
Voice-Leading**

2 → 7

3 → 1

7 → 2

1 → 3



M.S.R.P. 1) CABGA 2) DE^bCDB

1) ||: CABGA FG Eb F DE^bCDB:| 2) ||: DE^bC D BCABGA FG Eb F:|

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 6

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd
3 → 3rd
2 → 2nd
1 → 2nd

→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
•	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
•	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→

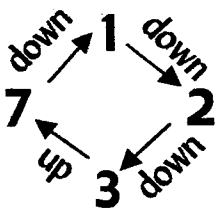
→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→

**Functional
Voice-Leading**

7 → 1
3 → 7
2 → 3
1 → 2

→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→

→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→



M.S.R.P. **C B A C B**

||: C B A C B A G B A G F A G F E_b G F E_b D F E_b D C E_b D C B D :||

↓		↓		↓		↓	
1		7		3		2	

Chord Family: Spread Clusters

Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 → 2nd

7 → 2nd

3 → 3rd

1 → 2nd

→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→	
•	→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
•	→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→	

→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→

**Functional
Voice-Leading**

2 → 3

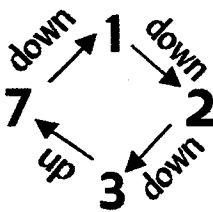
7 → 1

3 → 7

1 → 2

→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→

→	E _b	→	G	→	F	→	E _b	→	D	→	F	→	E _b	→
→	C	→	B	→	A	→	C	→	B	→	A	→	G	→
→	B	→	A	→	G	→	F	→	A	→	G	→	F	→
→	D	→	C	→	E _b	→	D	→	C	→	B	→	D	→



M.S.R.P. **C B A C B**

||: C B A C B A G B A G F A G F E_b G F E_b D F E_b D C E_b D C B D :||

↓		↓		↓		↓
1		7		3		2

Chord Family: Spread Clusters

Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 2 & 3

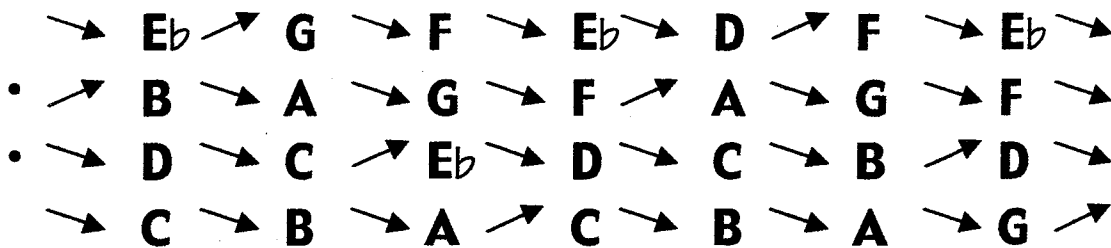
**Intervallic
Voice-Leading**

3 → 3rd

7 → 2nd

2 → 2nd

1 → 2nd



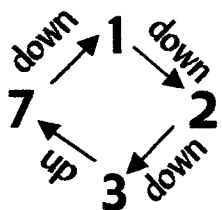
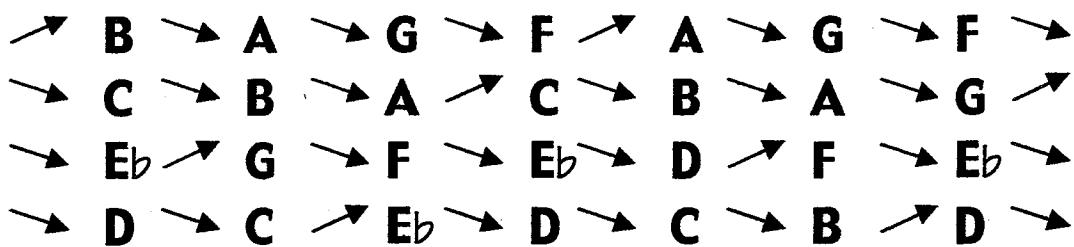
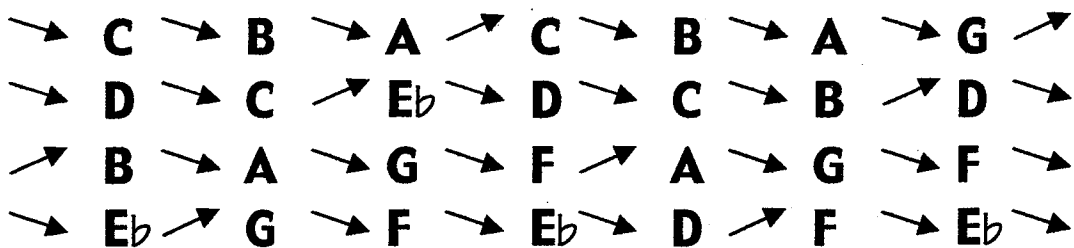
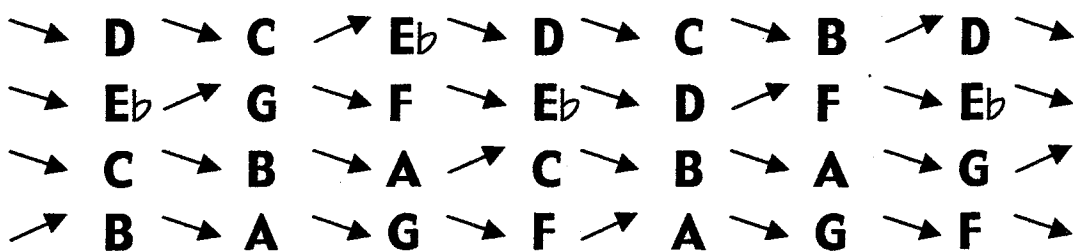
**Functional
Voice-Leading**

3 → 7

7 → 1

2 → 3

1 → 2



M.S.R.P. **C B A C B**

||: C B A C B A G B A G F A G F Eb G F Eb D F Eb D C Eb D C B D :||



Chord Family: Spread Clusters

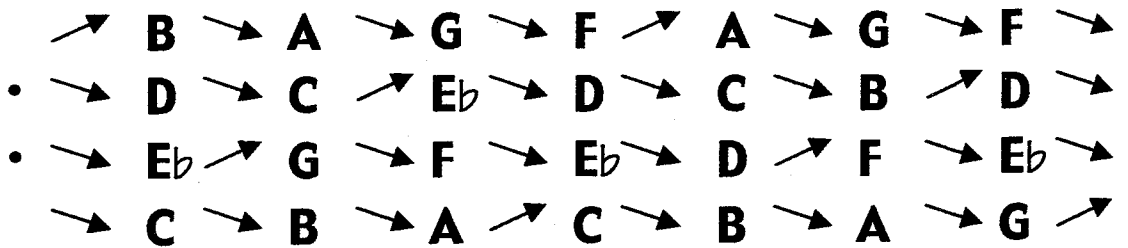
Cycle: 6

Scale: C melodic minor

Voicing Type: Drop 2 & 4

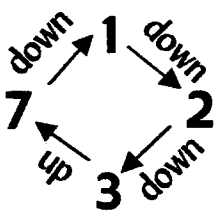
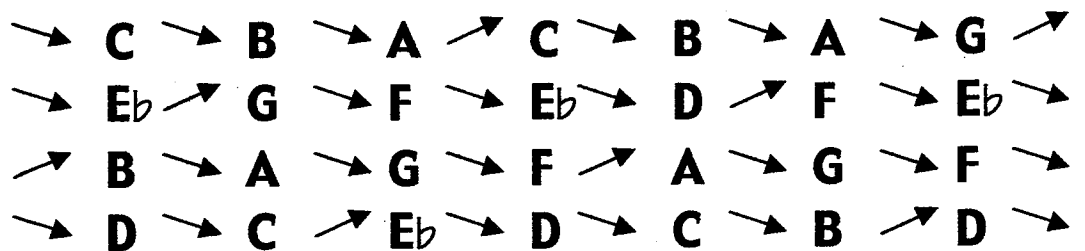
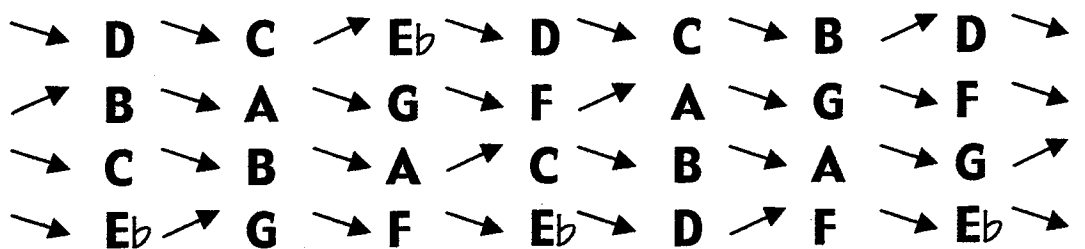
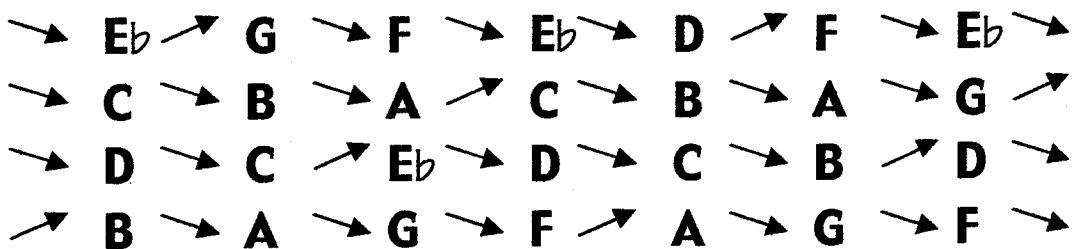
**Intervallic
Voice-Leading**

7 → 2nd
2 → 2nd
3 → 3rd
1 → 2nd



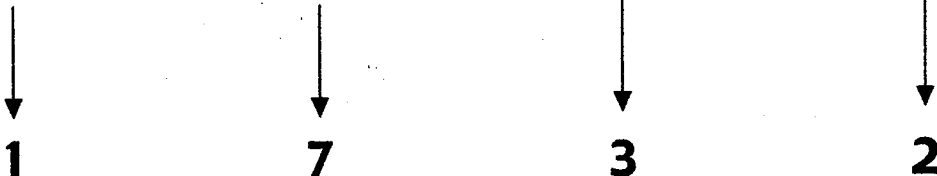
**Functional
Voice-Leading**

7 → 1
2 → 3
3 → 7
1 → 2



M.S.R.P. **C B A C B**

||: C B A C B A G B A G F A G F Eb G F Eb D F Eb D C Eb D C B D :||



Chord Family: Spread Clusters

Cycle: 7

Scale: C melodic minor

Voicing Type: 4-way close

Intervallic

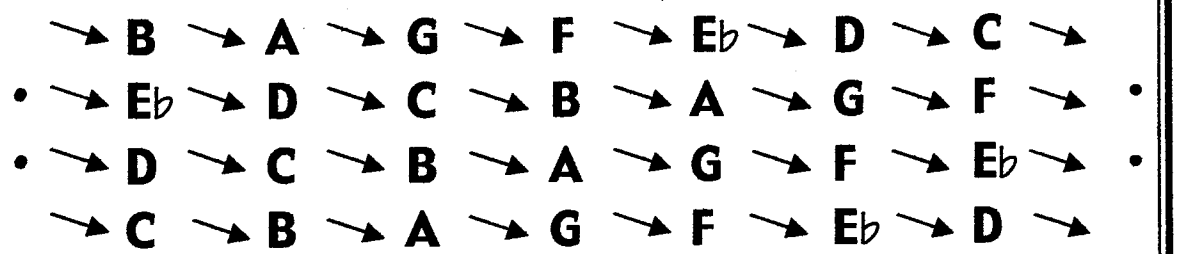
Voice-Leading

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd



Functional

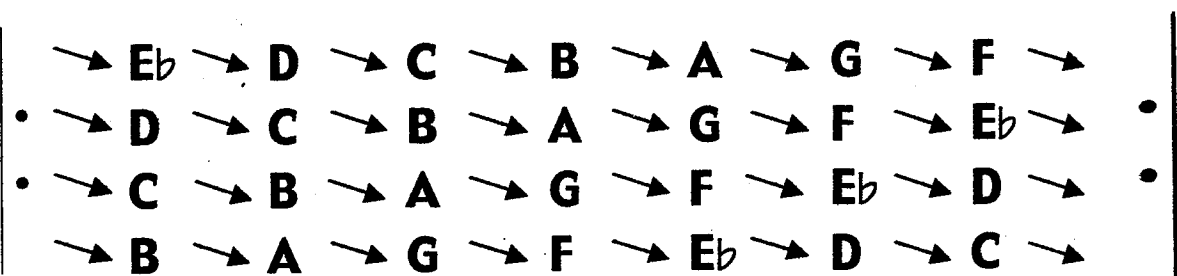
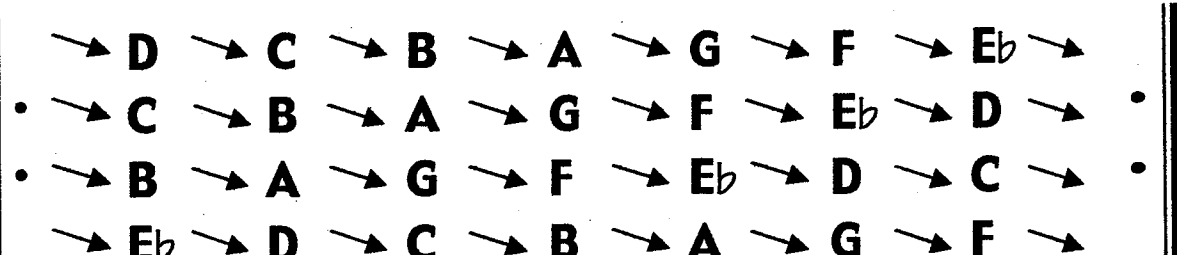
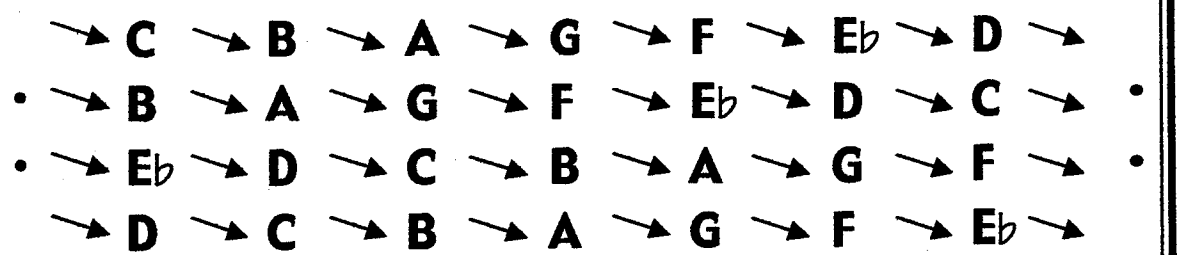
Voice-Leading

7 → 7

3 → 3

2 → 2

1 → 1



Chord Family: Spread Clusters

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 4th

2 — c.t.

7 — c.t.

1 — c.t.

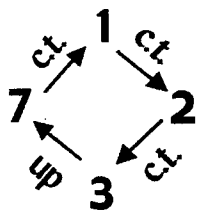
**Functional
Voice-Leading**

3 → 7

2 — 3

7 — 1

1 — 2



— Eb	→	A	—	A	—	A	—	A	→	D	—	D	—
• — D	—	D	→	G	—	G	—	G	—	G	→	C	—
• → B	—	B	—	B	—	B	→	Eb	—	Eb	—	Eb	—
— C	—	C	—	C	→	F	—	F	—	F	—	F	→
— D	—	D	→	G	—	G	—	G	—	G	→	C	—
— C	—	C	—	C	→	F	—	F	—	F	—	F	→
— Eb	→	A	—	A	—	A	—	A	→	D	—	D	—
→ B	—	B	—	B	—	B	→	Eb	—	Eb	—	Eb	—
— C	—	C	—	C	→	F	—	F	—	F	—	F	→
→ B	—	B	—	B	—	B	→	Eb	—	Eb	—	Eb	—
— D	—	D	→	G	—	G	—	G	—	G	→	C	—
— Eb	→	A	—	A	—	A	—	A	→	D	—	D	—
→ B	—	B	—	B	—	B	→	Eb	—	Eb	—	Eb	—
— Eb	→	A	—	A	—	A	—	A	→	D	—	D	—
— C	—	C	—	C	→	F	—	F	—	F	—	F	→
— D	—	D	→	G	—	G	—	G	—	G	→	C	—

M.S.R.P. **CCCFF**

||: CCC FFF FBBB Eb Eb Eb AAAA DDDD GGGG C: ||

1

7

3

2

Chord Family: Spread Clusters

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 2 & 3

Intervallic

Voice-Leading

3 → 4th

7 — c.t.

2 — c.t.

1 — c.t.

—	E _b	→	A	—	A	—	A	—	A	→	D	—	D	—	
•	→	B	—	B	—	B	—	B	→	E _b	—	E _b	—	E _b	—
•	—	D	—	D	→	G	—	G	—	G	—	G	→	C	—
—	C	—	C	—	C	→	F	—	F	—	F	—	F	→	

Functional

Voice-Leading

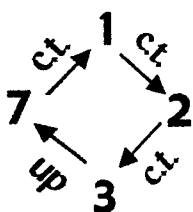
3 → 7

7 — 3

2 — 1

1 — 2

—	D	—	D	→	G	—	G	—	G	—	G	→	C	—
—	E _b	→	A	—	A	—	A	—	A	→	D	—	D	—
—	C	—	C	—	C	→	F	—	F	—	F	—	F	→
→	B	—	B	—	B	—	B	→	E _b	—	E _b	—	E _b	—
—	C	—	C	—	C	→	F	—	F	—	F	—	F	→
—	D	—	D	→	G	—	G	—	G	—	G	→	C	—
→	B	—	B	—	B	—	B	→	E _b	—	E _b	—	E _b	—
—	E _b	→	A	—	A	—	A	—	A	→	D	—	D	—
→	B	—	B	—	B	—	B	→	E _b	—	E _b	—	E _b	—
—	C	—	C	—	C	→	F	—	F	—	F	—	F	→
—	E _b	→	A	—	A	—	A	—	A	→	D	—	D	—
—	D	—	D	→	G	—	G	—	G	—	G	→	C	—



M.S.R.P. **CCCFF**

||: CCC FFF BBB Eb Eb Eb AAA A DDD DGG GC: ||

↓
1

↓
7

↓
3

↓
2

Chord Family: Spread Clusters

Cycle: 7

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 — c.t.

2 — c.t.

3 → 4th

1 — c.t.

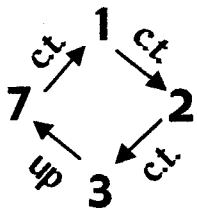
**Functional
Voice-Leading**

7 — 1

2 — 3

3 → 7

1 — 2



→ B — B — B — B	→ Eb — Eb — Eb —
• — D — D → G — G — G — G	→ C —
• — Eb → A — A — A — A	→ D — D —
— C — C — C → F — F — F — F	→
— Eb → A — A — A — A	→ D — D —
— C — C — C → F — F — F — F	→
— D — D → G — G — G — G	→ C —
→ B — B — B — B	→ Eb — Eb — Eb —
— D — D → G — G — G — G	→ C —
→ B — B — B — B	→ Eb — Eb — Eb —
— C — C — C → F — F — F — F	→
— Eb → A — A — A — A	→ D — D —
— C — C — C → F — F — F — F	→
— Eb → A — A — A — A	→ D — D —
→ B — B — B — B	→ Eb — Eb — Eb —
— D — D → G — G — G — G	→ C —

M.S.R.P. **CCCF**

||: **CCCF** **FF** **BB** **BEb** **EbE** **Eb** **AA** **ADD** **DD** **GG** **GC** :||



Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: 4-way close

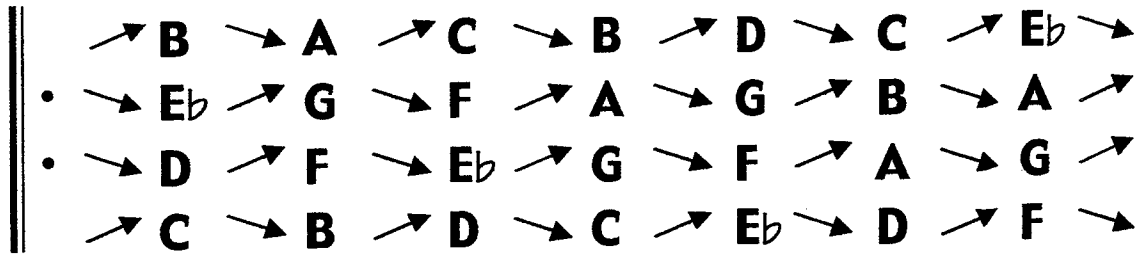
**Intervallic
Voice-Leading**

7 → 2nd

3 → 3rd

2 → 3rd

1 → 2nd



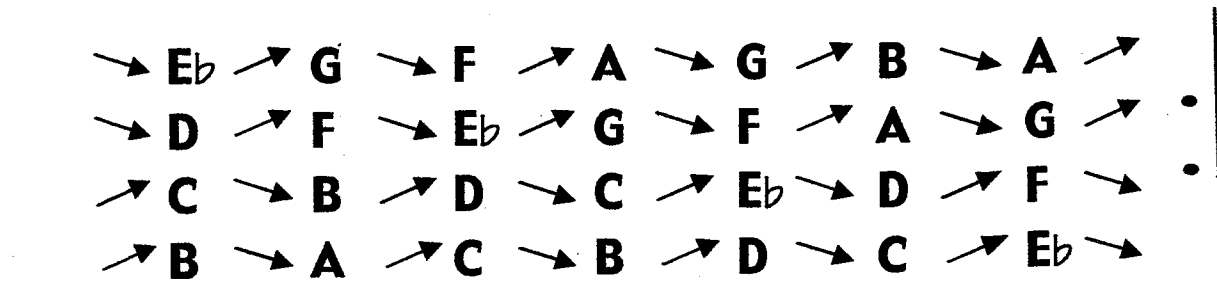
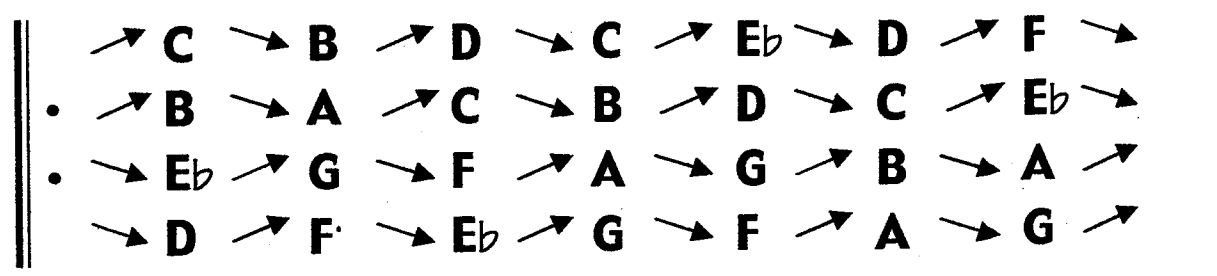
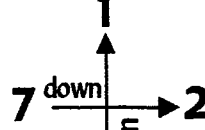
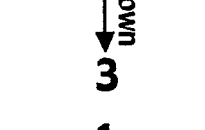
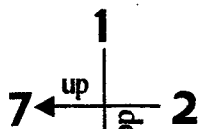
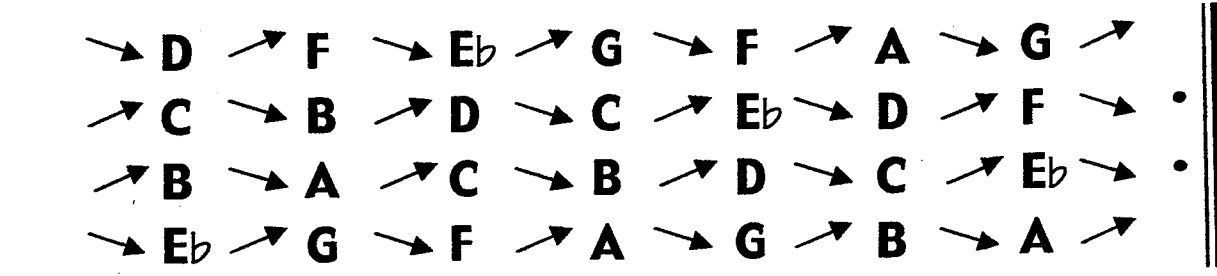
**Functional
Voice-Leading**

7 → 2

3 → 1

2 → 7

1 → 3



M.S.R.P. 1) $\overline{C B D C E_b}$ 2) $\overline{D F E_b G F}$

1) $\parallel: C B D C E_b D F E_b G F A G B A : \parallel$ 2) $\parallel: D F E_b G F A G B A C B D C E_b : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2

Intervallic

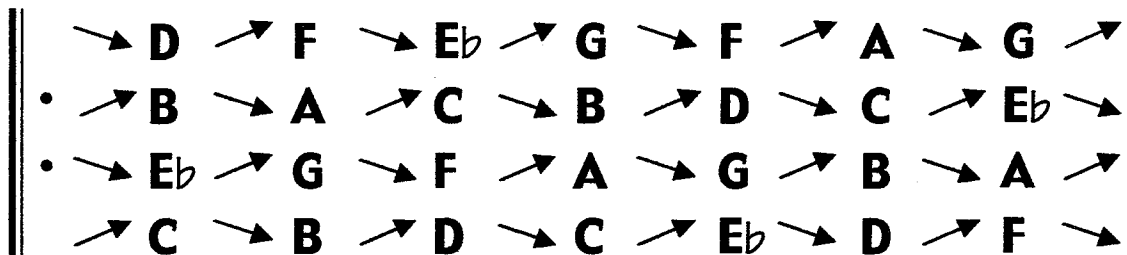
Voice-Leading

2 → 3rd

7 → 2nd

3 → 3rd

1 → 2nd



Functional

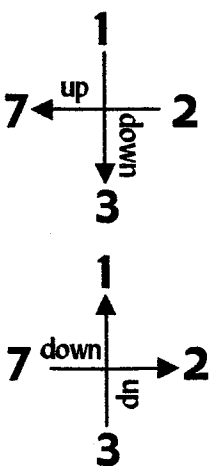
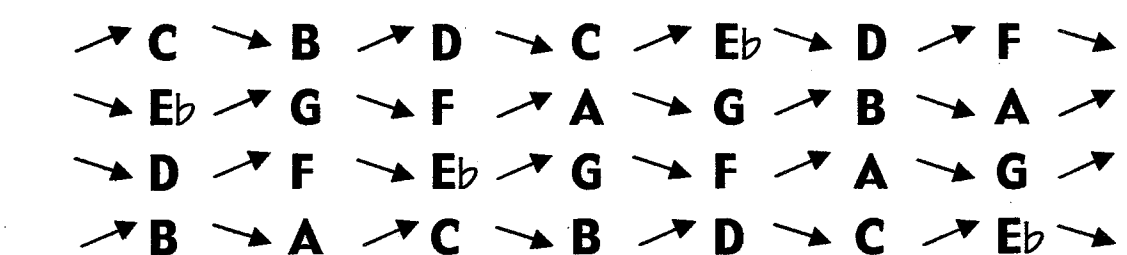
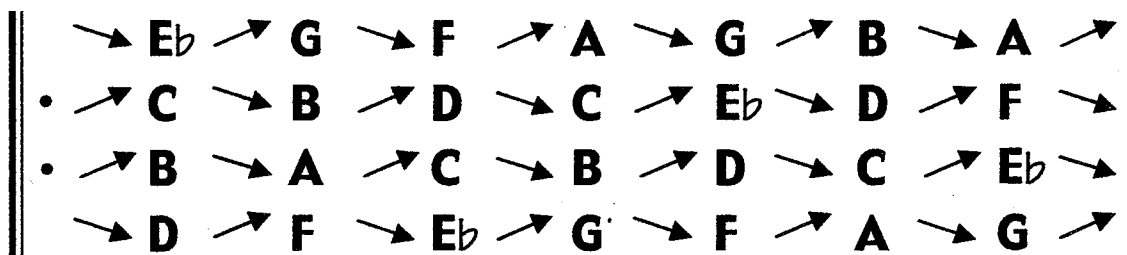
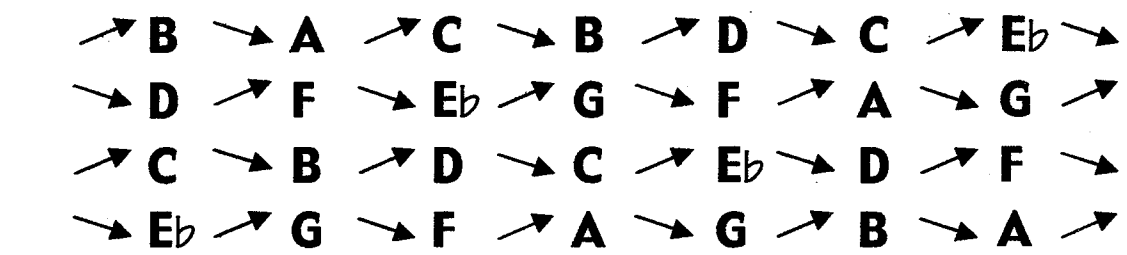
Voice-Leading

2 → 7

7 → 2

3 → 1

1 → 3



M.S.R.P. 1) $\overbrace{C B D C} Eb$ 2) $\overbrace{D F Eb G} F$

1) $||: C B D C Eb D F Eb G F A G B A :||$ 2) $||: D F Eb G F A G B A C B D C Eb :||$



Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 3

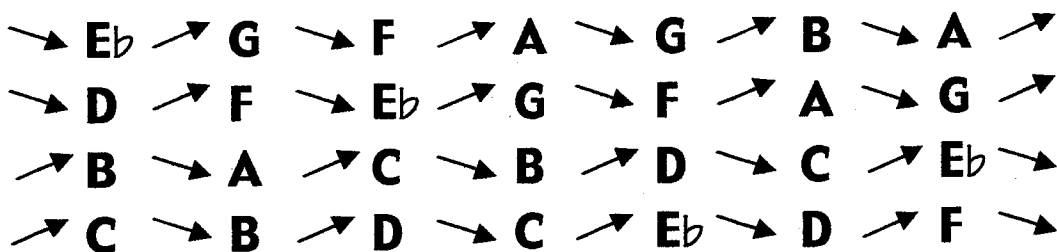
**Intervallic
Voice-Leading**

3 → 3rd

2 → 3rd

7 → 2nd

1 → 2nd



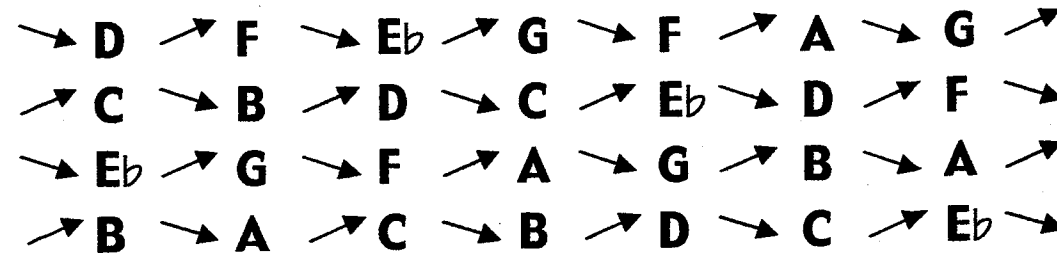
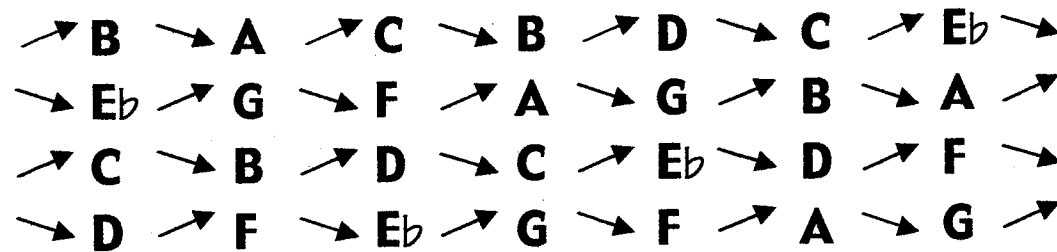
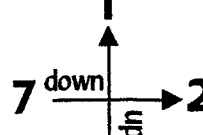
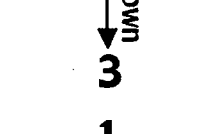
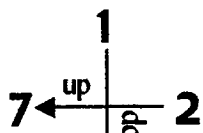
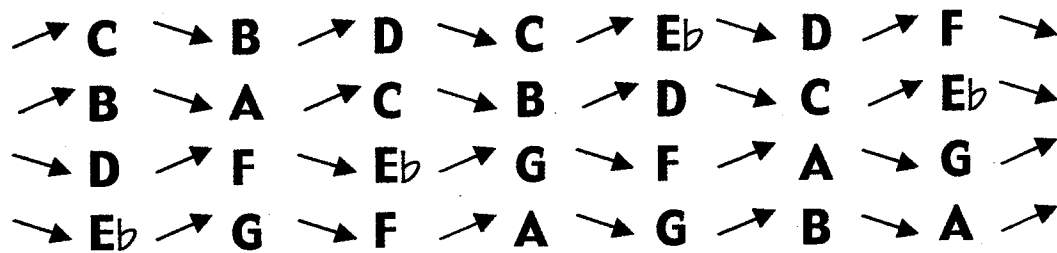
**Functional
Voice-Leading**

3 → 1

2 → 7

7 → 2

1 → 3



M.S.R.P. 1) C B D C Eb 2) D F Eb G F

1) ||: C B D C Eb D F Eb G F A G B A :|| 2) ||: D F Eb G F A G B A C B D C Eb :||

1

3

2

7

Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2 & 3

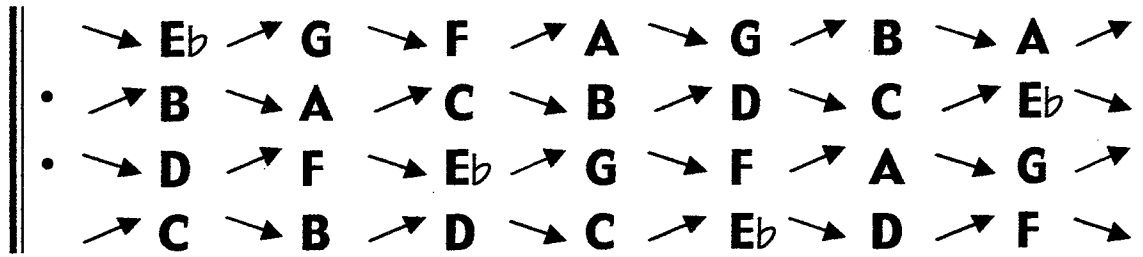
**Intervallic
Voice-Leading**

3 → 3rd

7 → 2nd

2 → 3rd

1 → 2nd



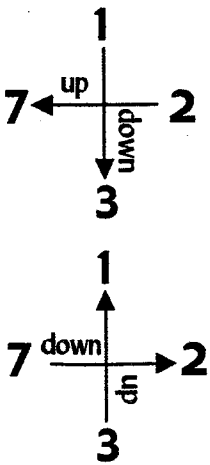
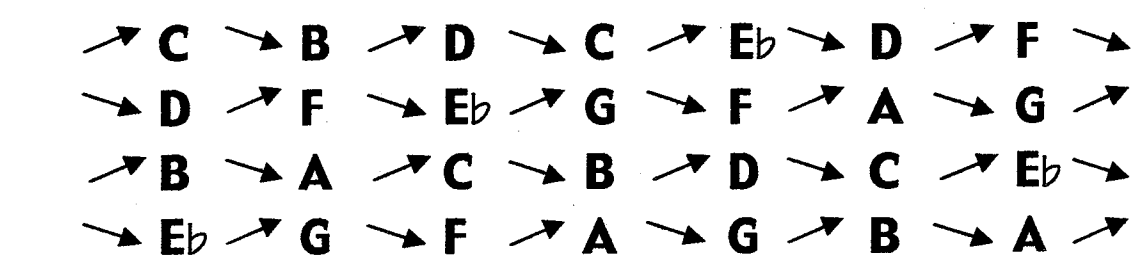
**Functional
Voice-Leading**

3 → 1

7 → 2

2 → 7

1 → 3



M.S.R.P. 1) $\overline{C B D C E_b}$ 2) $\overline{D F E_b G F}$

1) $\parallel: C B D C E_b D F E_b G F A G B A : \parallel$ 2) $\parallel: D F E_b G F A G B A C B D C E_b : \parallel$



Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

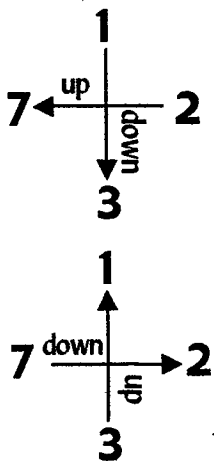
7 → 2nd
2 → 3rd
3 → 3rd
1 → 2nd

→	B	→	A	→	C	→	B	→	D	→	C	→	E _b	→	
•	→	D	→	F	→	E _b	→	G	→	F	→	A	→	G	→
•	→	E _b	→	G	→	F	→	A	→	G	→	B	→	A	→
→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→	

**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3

→	D	→	F	→	E _b	→	G	→	F	→	A	→	G	→
→	B	→	A	→	C	→	B	→	D	→	C	→	E _b	→
→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→
→	E _b	→	G	→	F	→	A	→	G	→	B	→	A	→



→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→	
•	→	E _b	→	G	→	F	→	A	→	G	→	B	→	A	→
•	→	B	→	A	→	C	→	B	→	D	→	C	→	E _b	→
→	D	→	F	→	E _b	→	G	→	F	→	A	→	G	→	

→	E _b	→	G	→	F	→	A	→	G	→	B	→	A	→
→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→
→	D	→	F	→	E _b	→	G	→	F	→	A	→	G	→
→	B	→	A	→	C	→	B	→	D	→	C	→	E _b	→

M.S.R.P. 1) $\overbrace{C B D C E_b}$ 2) $\overbrace{D F E_b G F}$

1) ||: C B D C E_b D F E_b G F A G B A :|| 2) ||: D F E_b G F A G B A C B D C E_b :||

1

3

2

7

Chord Family: Spread Clusters

Cycle: 5

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

Intervallic

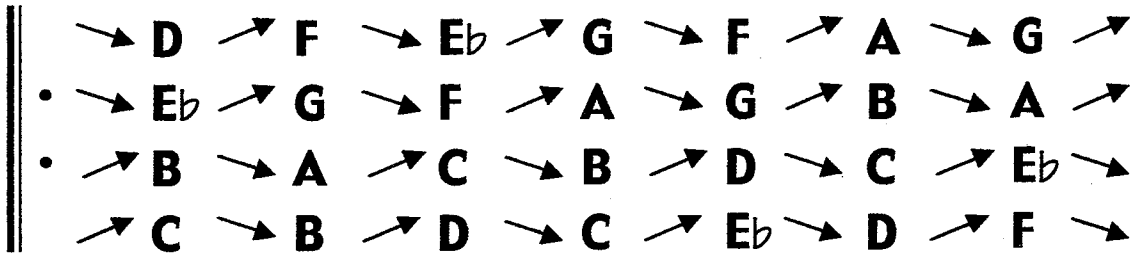
Voice-Leading

2 → 3rd

3 → 3rd

7 → 2nd

1 → 2nd



Functional

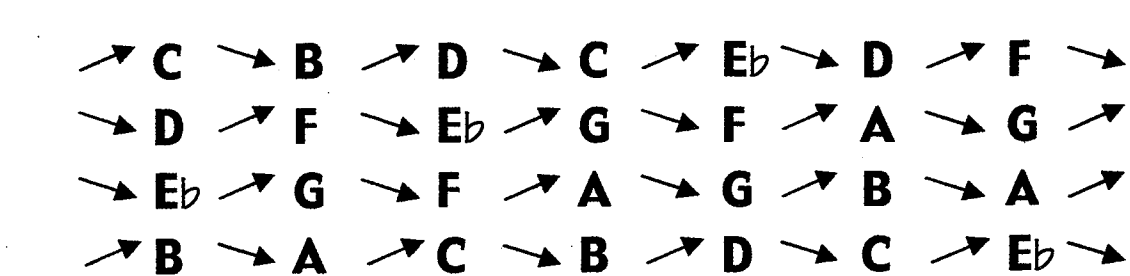
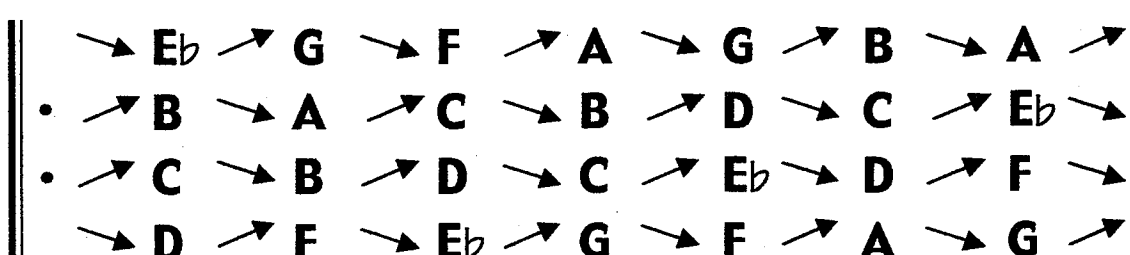
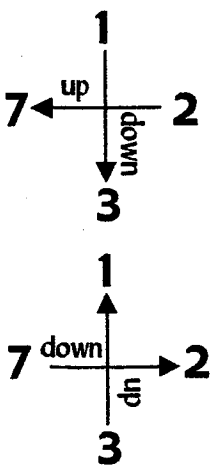
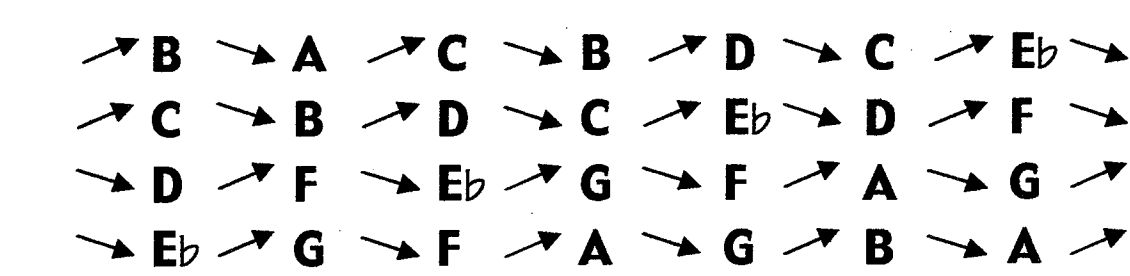
Voice-Leading

2 → 7

3 → 1

7 → 2

1 → 3



M.S.R.P. 1) $\overbrace{C B D C E_b}$ 2) $\overbrace{D F E_b G F}$

1) $\parallel: C B D C E_b D F E_b G F A G B A : \parallel$ 2) $\parallel: D F E_b G F A G B A C B D C E_b : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 2nd

→	B	→	G	→	A	→	B	→	C	→	A	→	B	→	
•	→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
•	→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→	

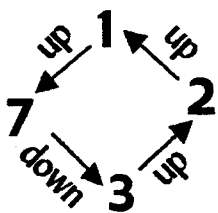
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→

**Functional
Voice-Leading**

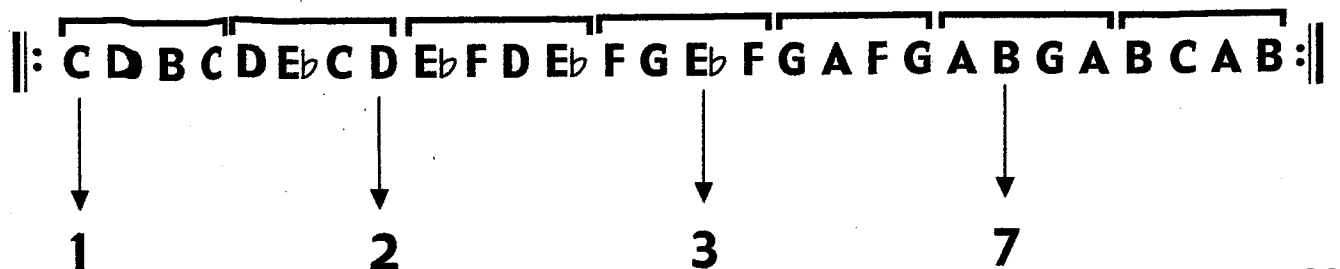
7 → 3
3 → 2
2 → 1
1 → 7

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→

→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→



M.S.R.P. C D B C D



Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 → 2nd

7 ↘ 3rd

3 → 2nd

1 → 2nd

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→	
•	→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
•	→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→	

→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→

**Functional
Voice-Leading**

2 → 1

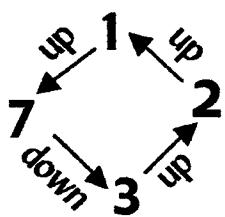
7 ↘ 3

3 → 2

1 → 7

→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→

→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→



M.S.R.P. C D B C D

||: C D B C D E_b C D E_b F D E_b F G E_b F G A F G A B G A B C A B :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 3

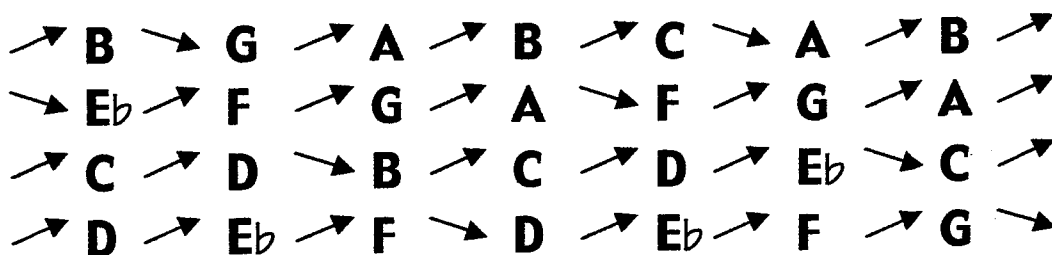
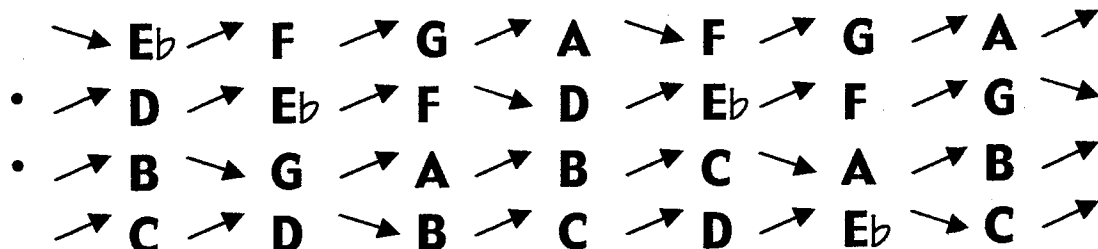
**Intervallic
Voice-Leading**

3 → 2nd

2 → 2nd

7 ↘ 3rd

1 → 2nd



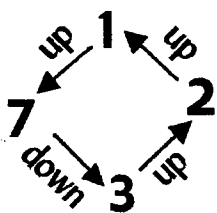
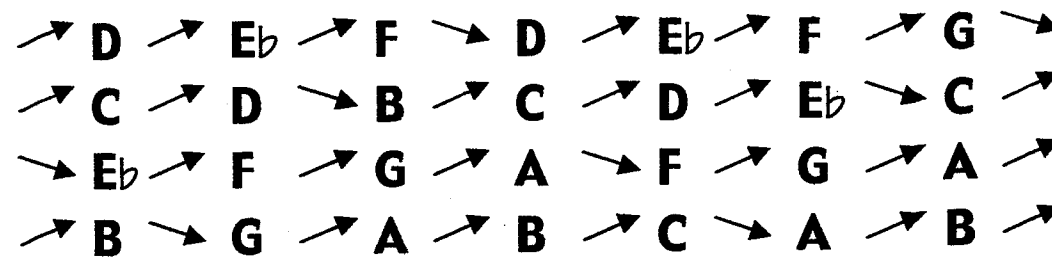
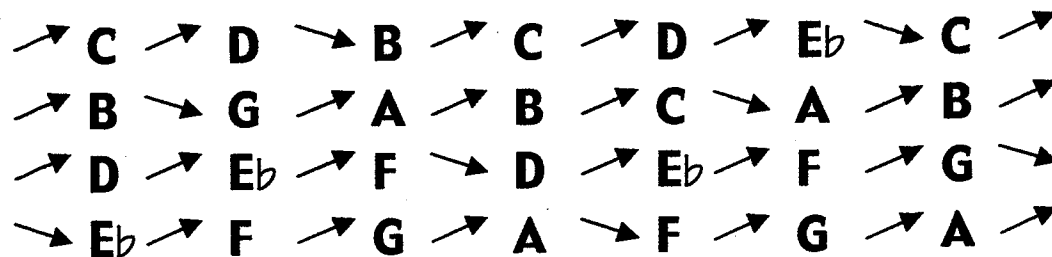
**Functional
Voice-Leading**

3 → 2

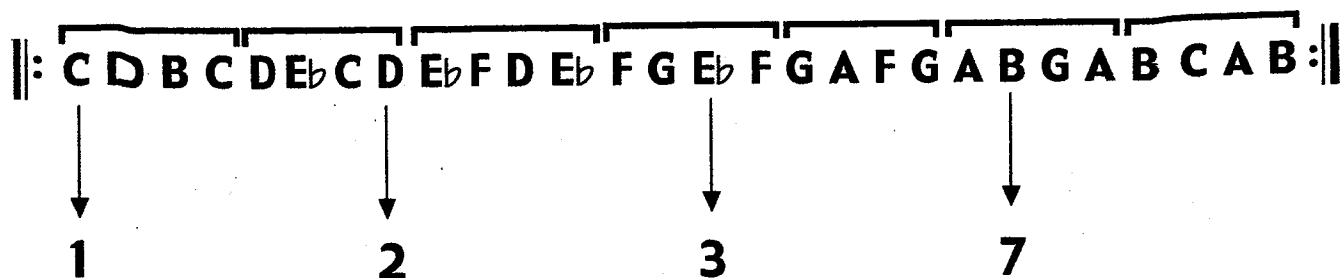
2 → 1

7 ↘ 3

1 → 7



M.S.R.P. C D B C D



Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 2 & 3

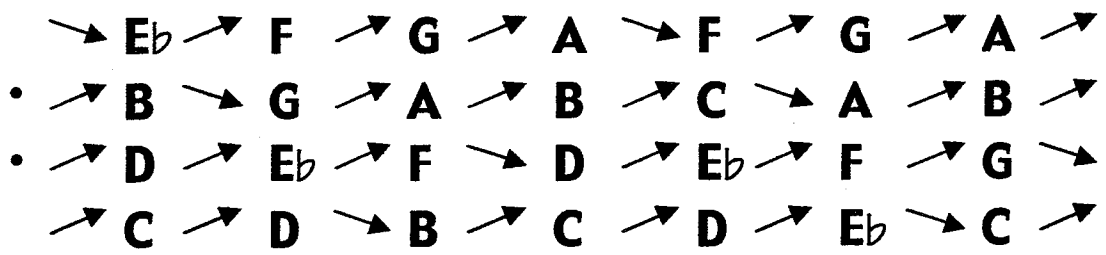
**Intervallic
Voice-Leading**

3 → 2nd

7 → 3rd

2 → 2nd

1 → 2nd



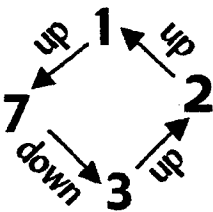
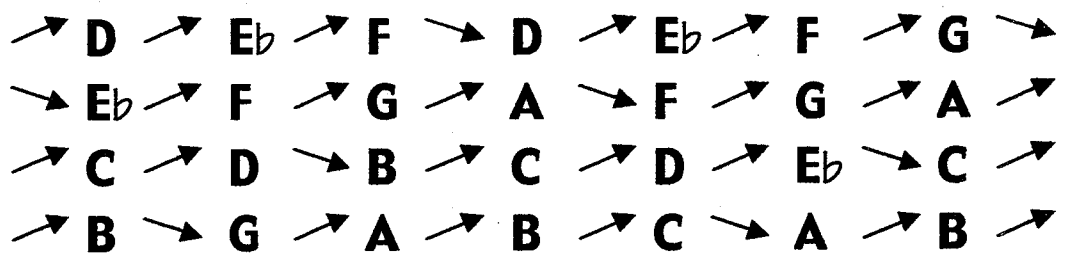
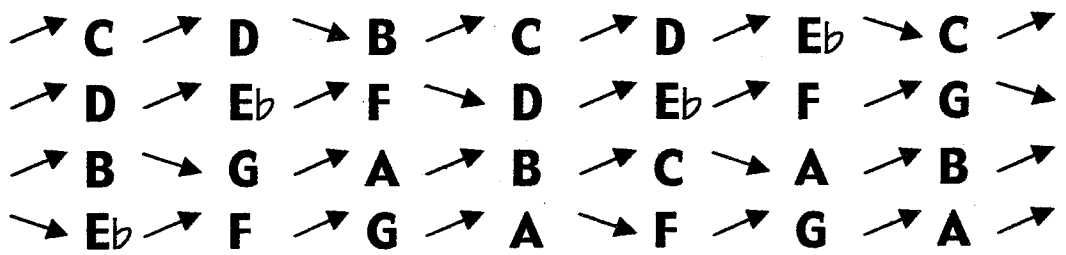
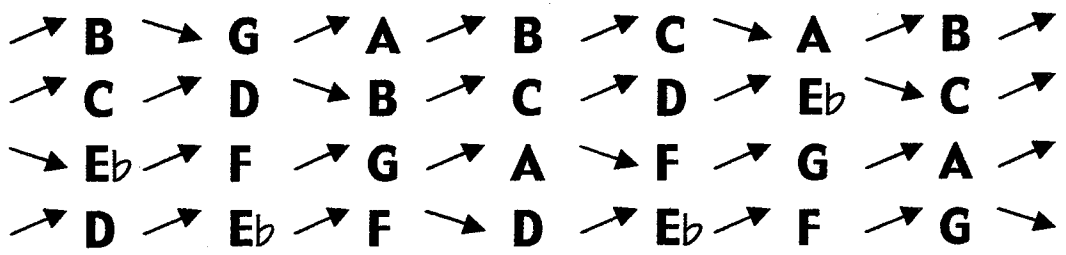
**Functional
Voice-Leading**

3 → 2

7 → 3

2 → 1

1 → 7



M.S.R.P. C D B C D

||: C D B C D E_b C D E_b F D E_b F G E_b F G A F G A B G A B C A B :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd
2 → 2nd
3 → 2nd
1 → 2nd

→	B	→	G	→	A	→	B	→	C	→	A	→	B	→	
•	→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
•	→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→	

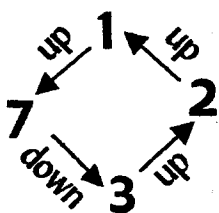
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→

**Functional
Voice-Leading**

7 → 3
2 → 1
3 → 2
1 → 7

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→

→	E _b	→	F	→	G	→	A	→	F	→	G	→	A	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	B	→	G	→	A	→	B	→	C	→	A	→	B	→



M.S.R.P. C D B C D

||: C D B C D E_b C D E_b F D E_b F G E_b F G A F G A B G A B C A B :||

↓		↓		↓		↓
1		2		3		7

Chord Family: Spread Clusters

Cycle: 3

Scale: C melodic minor

Voicing Type: Double Drop 2,
Drop 3

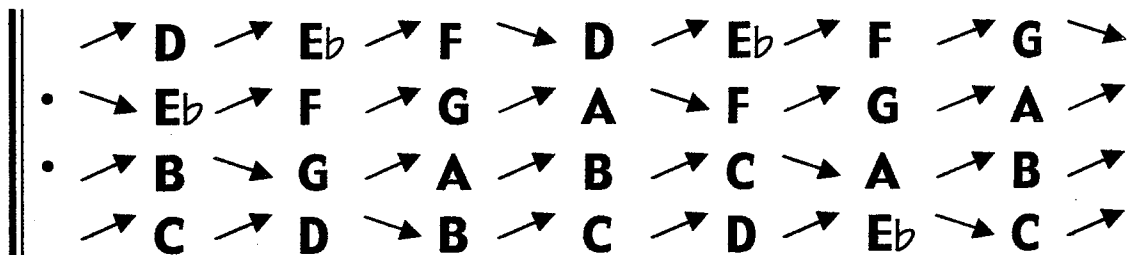
**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 ↘ 3rd

1 → 2nd



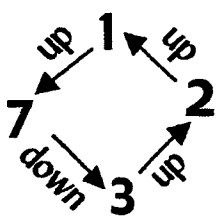
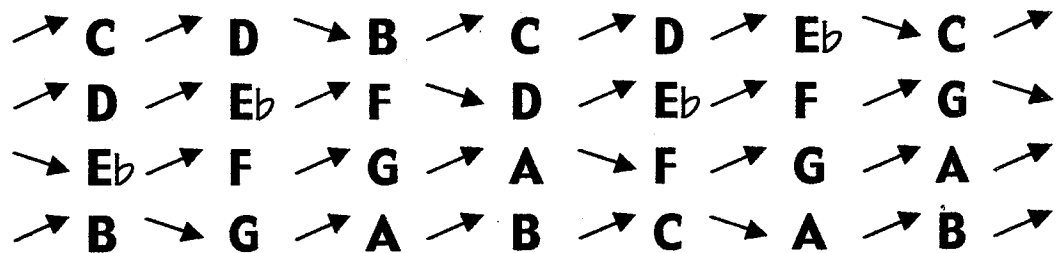
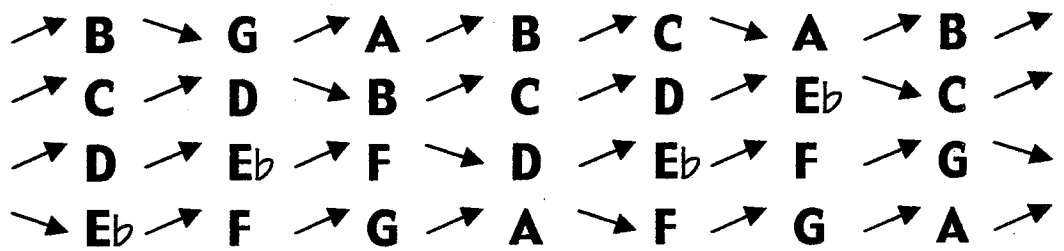
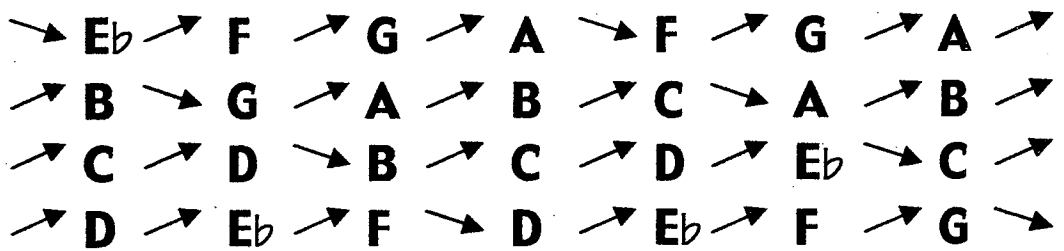
**Functional
Voice-Leading**

2 → 1

3 → 2

7 ↘ 3

1 → 7



M.S.R.P. **C D B C D**

||: C D B C D Eb C D Eb F D Eb F G Eb F G A F G A B G A B C A B :||

↓
1

↓
2

↓
3

↓
7

SPREAD CLUSTERS
ALL VOICINGS
ALL CYCLES
C HARMONIC MINOR

Chord Family: Spread Clusters

Cycle: 2

Scale: C harmonic minor

Voicing Type: 4-way close

Intervallic

Voice-Leading

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd

→ B	→ C	→ D	→ Eb	→ F	→ G	→ Ab	→
• → Eb	→ F	→ G	→ Ab	→ B	→ C	→ D	→ •
• → D	→ Eb	→ F	→ G	→ Ab	→ B	→ C	→ •
→ C	→ D	→ Eb	→ F	→ G	→ Ab	→ B	→

Functional

Voice-Leading

7 → 7

3 → 3

2 → 2

1 → 1

→ C	→ D	→ Eb	→ F	→ G	→ Ab	→ B	→
• → B	→ C	→ D	→ Eb	→ F	→ G	→ Ab	→ •
• → Eb	→ F	→ G	→ Ab	→ B	→ C	→ D	→ •
→ D	→ Eb	→ F	→ G	→ Ab	→ B	→ C	→

→ D	→ Eb	→ F	→ G	→ Ab	→ B	→ C	→
• → C	→ D	→ Eb	→ F	→ G	→ Ab	→ B	→ •
• → B	→ C	→ D	→ Eb	→ F	→ G	→ Ab	→ •
→ Eb	→ F	→ G	→ Ab	→ B	→ C	→ D	→

→ Eb	→ F	→ G	→ Ab	→ B	→ C	→ D	→
• → D	→ Eb	→ F	→ G	→ Ab	→ B	→ C	→ •
• → C	→ D	→ Eb	→ F	→ G	→ Ab	→ B	→ •
→ B	→ C	→ D	→ Eb	→ F	→ G	→ Ab	→



Chord Family: Spread Clusters

Cycle: 2

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

3 — c.t.

7 → 4th

2 — c.t.

1 — c.t.

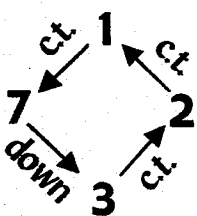
**Functional
Voice-Leading**

3 — 2

7 → 3

2 — 1

1 — 7



→ Eb — Eb — Eb — Eb → B — B — B —
• — B → F — F — F — F → C — C —
• — D — D — D → Ab — Ab — Ab — Ab →
— C — C → G — G — G — G → D —
— B → F — F — F — F → C — C —
— C — C → G — G — G — G → D —
→ Eb — Eb — Eb — Eb → B — B — B —
— D — D — D → Ab — Ab — Ab — Ab →
— C — C → G — G — G — G → D —
— D — D — D → Ab — Ab — Ab — Ab →
— B → F — F — F — F → C — C —
→ Eb — Eb — Eb — Eb → B — B — B —
— D — D — D → Ab — Ab — Ab — Ab →
→ Eb — Eb — Eb — Eb → B — B — B —
— C — C → G — G — G — G → D —
— B → F — F — F — F → C — C —

M.S.R.P. **CCGGG**

||: C C G G G G D D D D A b A b A b A b E b E b E b E b B B B B F F F F C C :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 2

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 4th

2 — c.t.

3 — c.t.

1 — c.t.

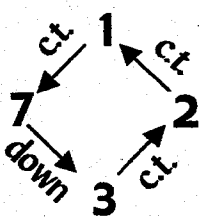
**Functional
Voice-Leading**

7 → 3

2 — 1

3 — 2

1 — 7



—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
•	—	D	—	D	—	D	→	A _b	—	A _b	—	A _b	—	A _b	→
•	→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	D	—	D	—	D	→	A _b	—	A _b	—	A _b	—	A _b	→	
—	D	—	D	—	D	→	A _b	—	A _b	—	A _b	—	A _b	→	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
→	E _b	—	E _b	—	E _b	—	E _b	→	B	—	B	—	B	—	
—	C	—	C	→	G	—	G	—	G	—	G	→	D	—	
—	D	—	D	—	D	→	A _b	—	A _b	—	A _b	—	A _b	→	
—	B	→	F	—	F	—	F	—	F	→	C	—	C	—	

M.S.R.P. **CCGGG**

||: C C G G G G D D D D A_b A_b A_b A_b E_b E_b E_b E_b B B B B F F F F C C :||

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 3rd

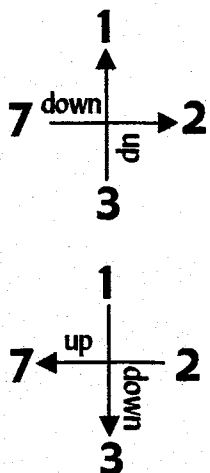
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→	
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
•	→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→	

→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

**Functional
Voice-Leading**

7 → 2
3 → 1
2 → 7
1 → 3

→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→	
•	→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→	



→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→

M.S.R.P.

1) C A_b B G A_b

2) D E_b C D B

1) ||: C A_b B G A_b F G E_b F D E_b C D B :|| 2) ||: D E_b C D B C A_b B G A_b F G E_b F :||

1

3

2

7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 → 2nd
7 → 3rd
3 → 2nd
1 → 3rd

→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→	
•	→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→	

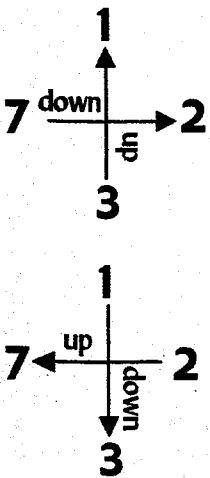
**Functional
Voice-Leading**

2 → 7
7 → 2
3 → 1
1 → 3

→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→	
•	→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
•	→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→	

→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→



M.S.R.P. 1) $\overline{C A_b B G} A_b$ 2) $\overline{D E_b C D} B$

1) $\parallel: C A_b B G A_b F G E_b F D E_b C D B : \parallel$ 2) $\parallel: D E_b C D B C A_b B G A_b F G E_b F : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

3 → 2nd
2 → 2nd
7 → 3rd
1 → 3rd

→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→	
•	→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
•	→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→	

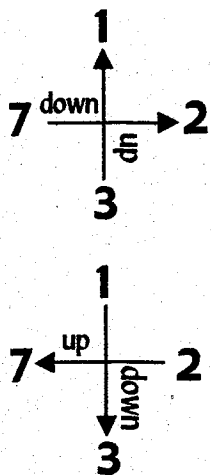
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

**Functional
Voice-Leading**

3 → 1
2 → 7
7 → 2
1 → 3

→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→	
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
•	→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→	

→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→



M.S.R.P. 1) $\overline{C A_b B G A_b}$ 2) $\overline{D E_b C D B}$

1) $\parallel: C A_b B G A_b F G E_b F D E_b C D B: \parallel$ 2) $\parallel: D E_b C D B C A_b B G A_b F G E_b F: \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

**Intervallic
Voice-Leading**

3 → 2nd

7 → 3rd

2 → 2nd

1 → 3rd

→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→	
•	→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
•	→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→	

→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→

**Functional
Voice-Leading**

3 → 1

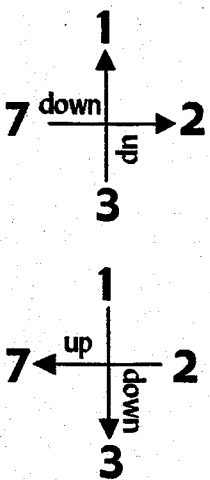
7 → 2

2 → 7

1 → 3

→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→	
•	→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
•	→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→	

→	D	→	E _b	→	C	→	D	→	B	→	C	→	A _b	→
→	E _b	→	F	→	D	→	E _b	→	C	→	D	→	B	→
→	C	→	A _b	→	B	→	G	→	A _b	→	F	→	G	→
→	B	→	G	→	A _b	→	F	→	G	→	E _b	→	F	→



M.S.R.P. 1) C A_b B G A_b 2) D E_b C D B

1) ||: C A_b B G A_b F G E_b F D E_b C D B :|| 2) ||: D E_b C D B C A_b B G A_b F G E_b F :||

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 3rd
2 → 2nd
3 → 2nd
1 → 3rd

→	B	→	G	→	A_b	→	F	→	G	→	E_b	→	F	→	
•	→	D	→	E_b	→	C	→	D	→	B	→	C	→	A_b	→
•	→	E_b	→	F	→	D	→	E_b	→	C	→	D	→	B	→
→	C	→	A_b	→	B	→	G	→	A_b	→	F	→	G	→	

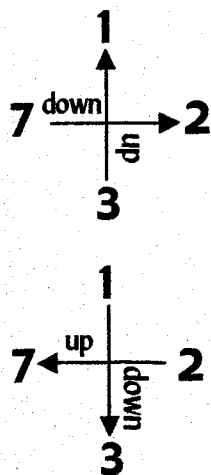
**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3

→	D	→	E_b	→	C	→	D	→	B	→	C	→	A_b	→
→	B	→	G	→	A_b	→	F	→	G	→	E_b	→	F	→
→	C	→	A_b	→	B	→	G	→	A_b	→	F	→	G	→
→	E_b	→	F	→	D	→	E_b	→	C	→	D	→	B	→

→	C	→	A_b	→	B	→	G	→	A_b	→	F	→	G	→	
•	→	E_b	→	F	→	D	→	E_b	→	C	→	D	→	B	→
•	→	B	→	G	→	A_b	→	F	→	G	→	E_b	→	F	→
→	D	→	E_b	→	C	→	D	→	B	→	C	→	A_b	→	

→	E_b	→	F	→	D	→	E_b	→	C	→	D	→	B	→
→	C	→	A_b	→	B	→	G	→	A_b	→	F	→	G	→
→	D	→	E_b	→	C	→	D	→	B	→	C	→	A_b	→
→	B	→	G	→	A_b	→	F	→	G	→	E_b	→	F	→



M.S.R.P. 1) $\overline{C A_b B G A_b}$ 2) $\overline{D E_b C D B}$

1) $\parallel: C A_b B G A_b F G E_b F D E_b C D B : \parallel$ 2) $\parallel: D E_b C D B C A_b B G A_b F G E_b F : \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 4

Scale: C harmonic minor

Voicing Type: Double Drop 2,
Drop 3

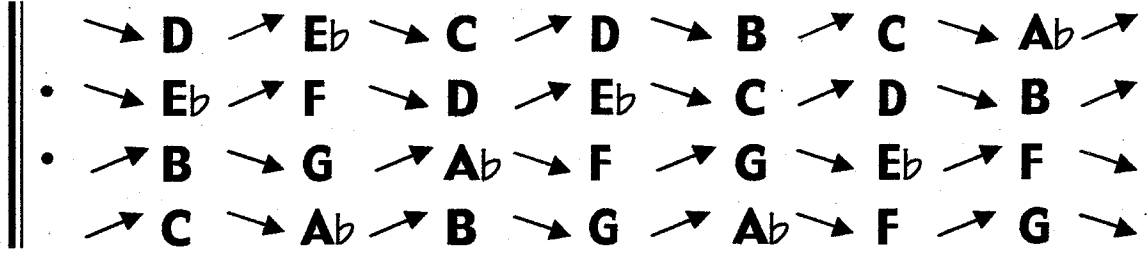
**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 → 3rd

1 → 3rd



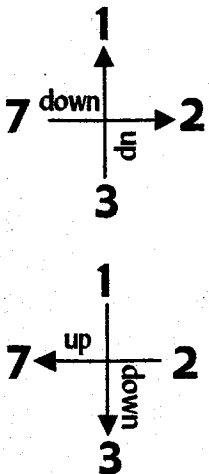
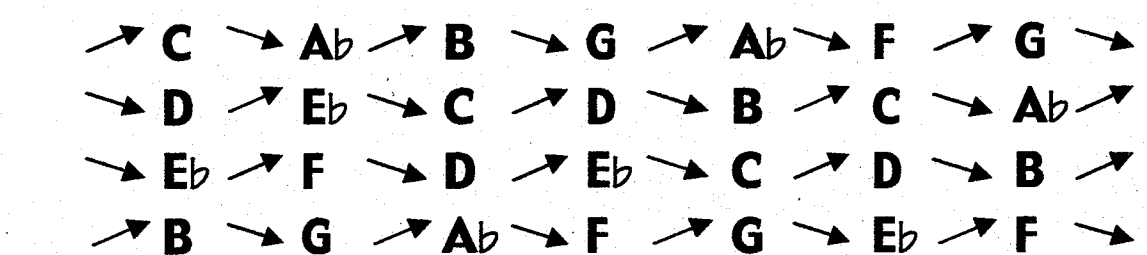
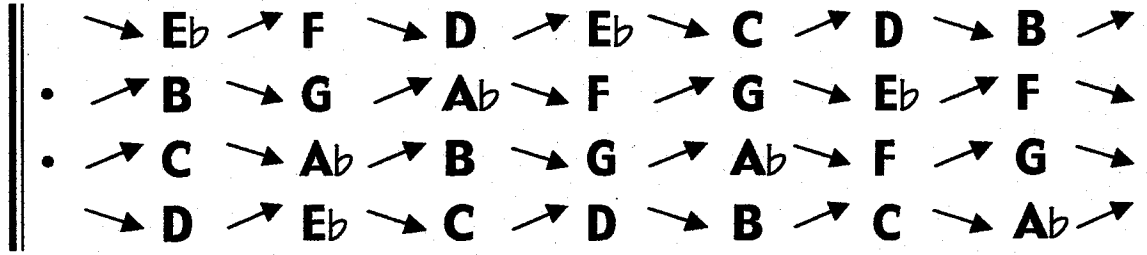
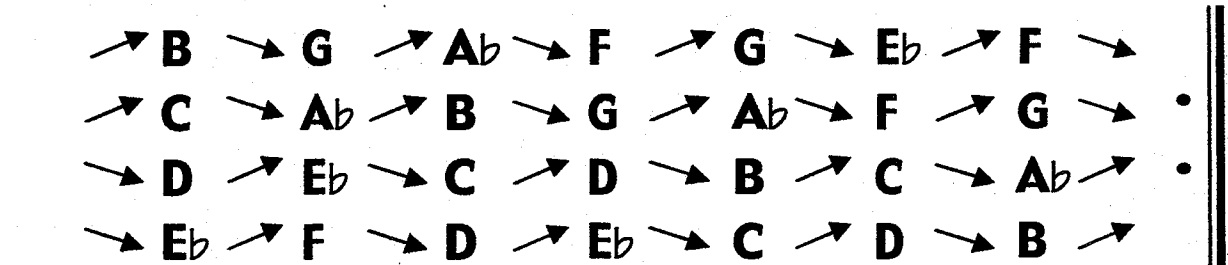
**Functional
Voice-Leading**

2 → 7

3 → 1

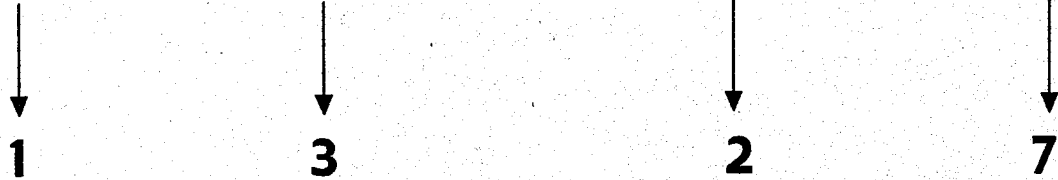
7 → 2

1 → 3



M.S.R.P. 1) $\overline{C A^b B G A^b}$ 2) $\overline{D E^b C D B}$

1) $\parallel : C A^b B G A^b F G E^b F D E^b C D B : \parallel$ 2) $\parallel : D E^b C D B C A^b B G A^b F G E^b F : \parallel$



Chord Family: Spread Clusters

Cycle: 6

Scale: C harmonic minor

Voicing Type: 4-way close

**Intervallic
Voice-Leading**

7 → 2nd
3 → 3rd
2 → 2nd
1 → 2nd

→	B	→	Ab	→	G	→	F	→	Ab	→	G	→	F	→	
•	→	Eb	→	G	→	F	→	Eb	→	D	→	F	→	Eb	→
•	→	D	→	C	→	Eb	→	D	→	C	→	B	→	D	→
→	C	→	B	→	Ab	→	C	→	B	→	Ab	→	G	→	

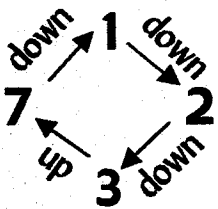
→	Eb	→	G	→	F	→	Eb	→	D	→	F	→	Eb	→
→	D	→	C	→	Eb	→	D	→	C	→	B	→	D	→
→	C	→	B	→	Ab	→	C	→	B	→	Ab	→	G	→
→	B	→	Ab	→	G	→	F	→	Ab	→	G	→	F	→

**Functional
Voice-Leading**

7 → 1
3 → 7
2 → 3
1 → 2

→	D	→	C	→	Eb	→	D	→	C	→	B	→	D	→
→	C	→	B	→	Ab	→	C	→	B	→	Ab	→	G	→
→	B	→	Ab	→	G	→	F	→	Ab	→	G	→	F	→
→	Eb	→	G	→	F	→	Eb	→	D	→	F	→	Eb	→

→	C	→	B	→	Ab	→	C	→	B	→	Ab	→	G	→
→	B	→	Ab	→	G	→	F	→	Ab	→	G	→	F	→
→	Eb	→	G	→	F	→	Eb	→	D	→	F	→	Eb	→
→	D	→	C	→	Eb	→	D	→	C	→	B	→	D	→



M.S.R.P. $\overline{C B A^b C B}$

||: C B A^b C B A^b G B A^b G F A^b G F E^b G F E^b D F E^b D C E^b D C B D :||

↓		↓		↓		↓
1		7		3		2

Chord Family: Spread Clusters

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2

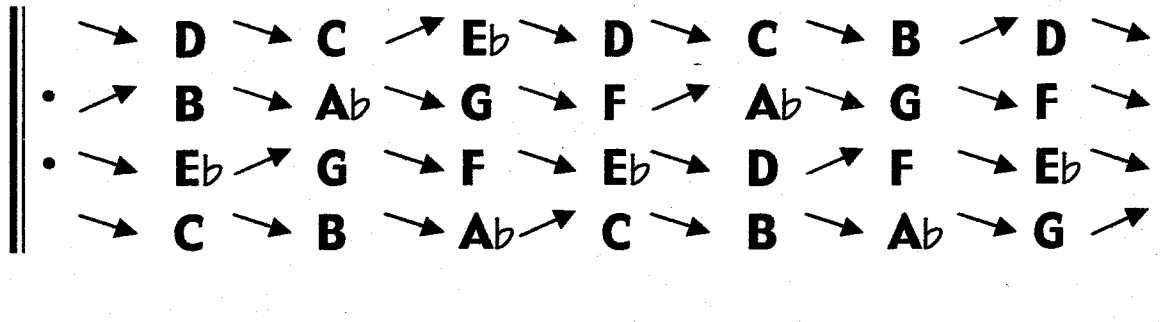
**Intervallic
Voice-Leading**

2 → 2nd

7 → 2nd

3 → 3rd

1 → 2nd



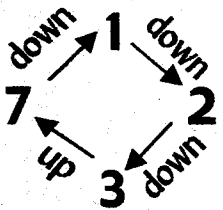
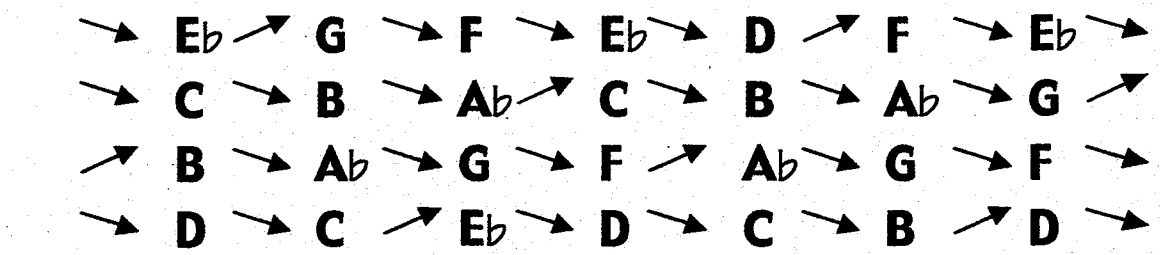
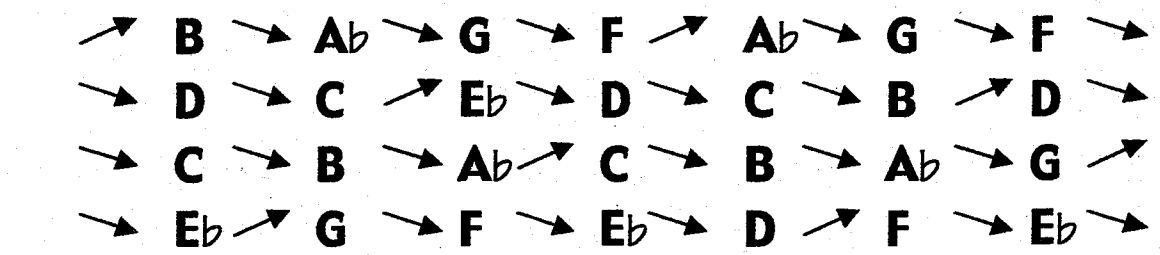
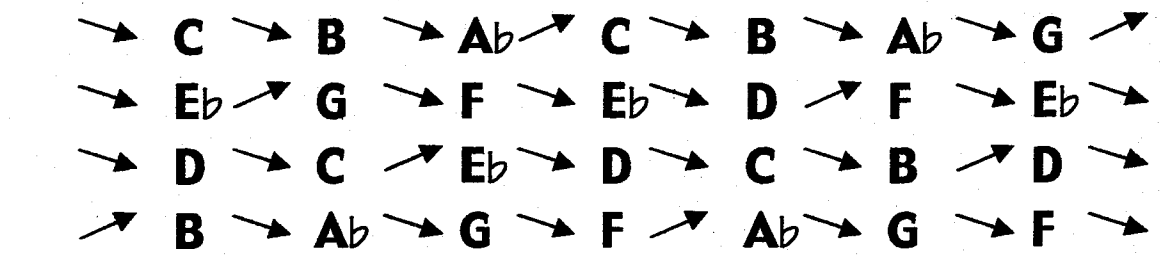
**Functional
Voice-Leading**

2 → 3

7 → 1

3 → 7

1 → 2



M.S.R.P. $\overline{C B A b C B}$

||: C B A^b C B A^b G B A^b G F A^b G F E^b G F E^b D F E^b D C E^b D C B D :||

↓
1

↓
7

↓
3

↓
2

Chord Family: Spread Clusters

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 3

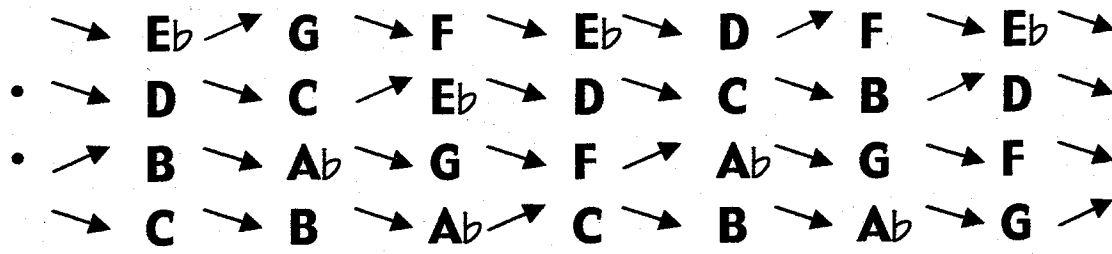
**Intervallic
Voice-Leading**

3 → 3rd

2 → 2nd

7 → 2nd

1 → 2nd



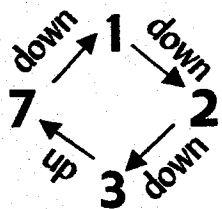
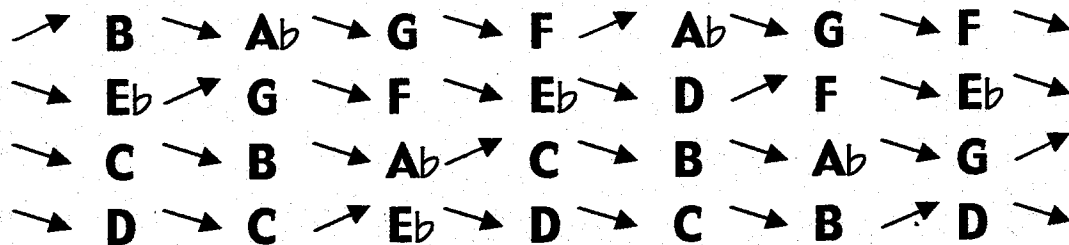
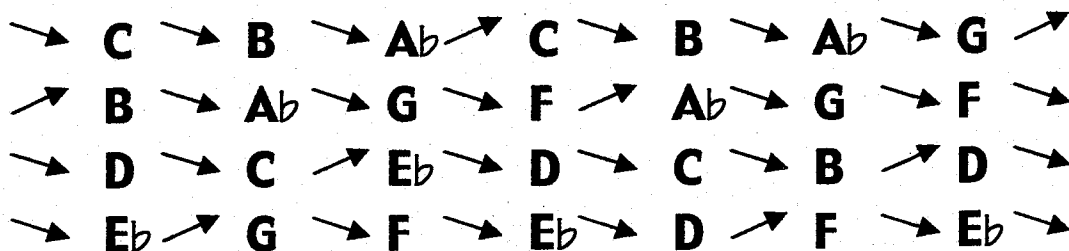
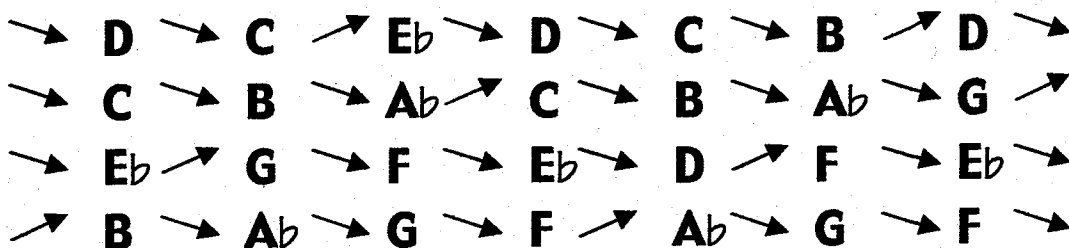
**Functional
Voice-Leading**

3 → 7

2 → 3

7 → 1

1 → 2



M.S.R.P. $\overline{C B A b C B}$

||: C B A b C B A b G B A b G F A b G F E b G F E b D F E b D C E b D C B D :||

↓
1

↓
7

↓
3

↓
2

Chord Family: Spread Clusters

Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

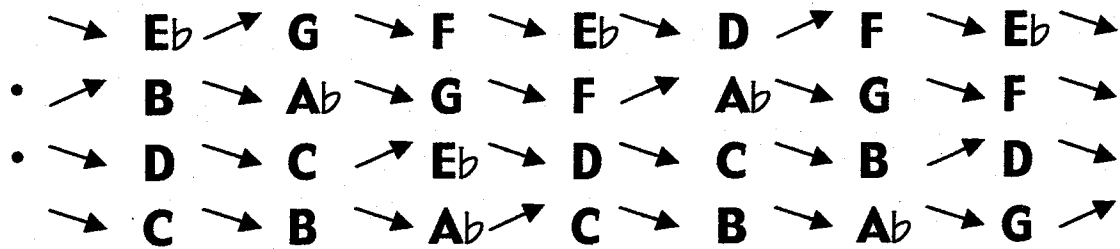
**Intervallic
Voice-Leading**

3 ↗ 3rd

7 → 2nd

2 → 2nd

1 → 2nd



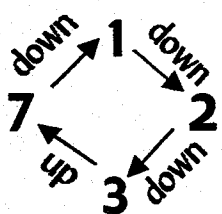
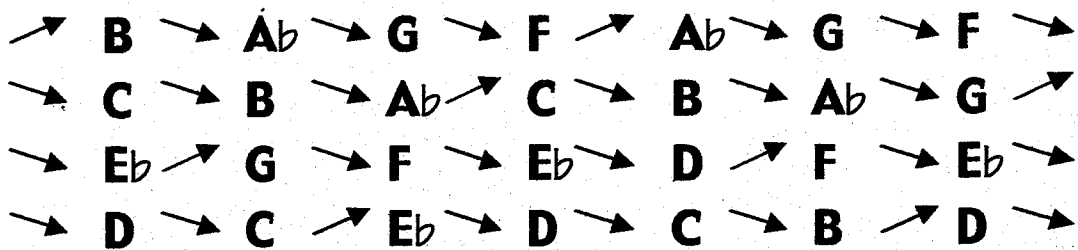
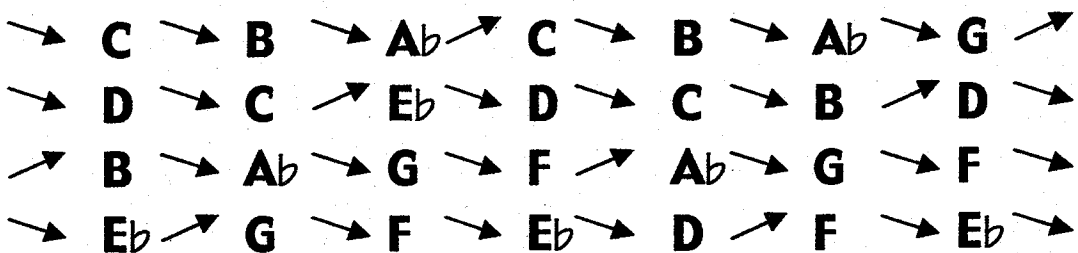
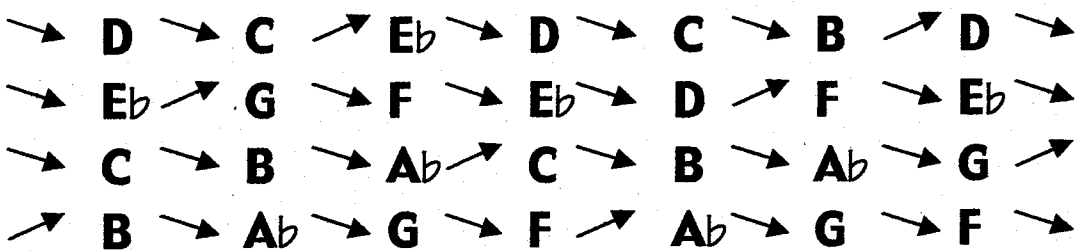
**Functional
Voice-Leading**

3 ↗ 7

7 → 1

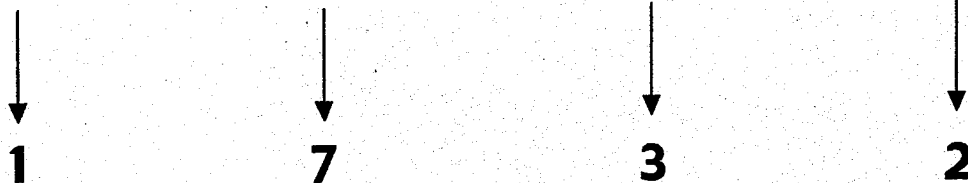
2 → 3

1 → 2



M.S.R.P. $\overline{C B A^b C B}$

||: C B A^b C B A^b G B A^b G F A^b G F E^b G F E^b D F E^b D C E^b D C B D :||



Chord Family: Spread Clusters

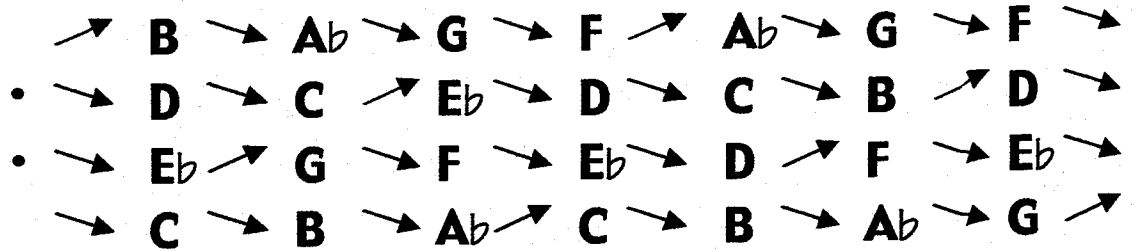
Cycle: 6

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

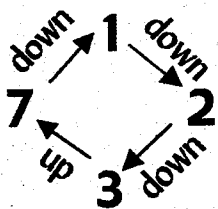
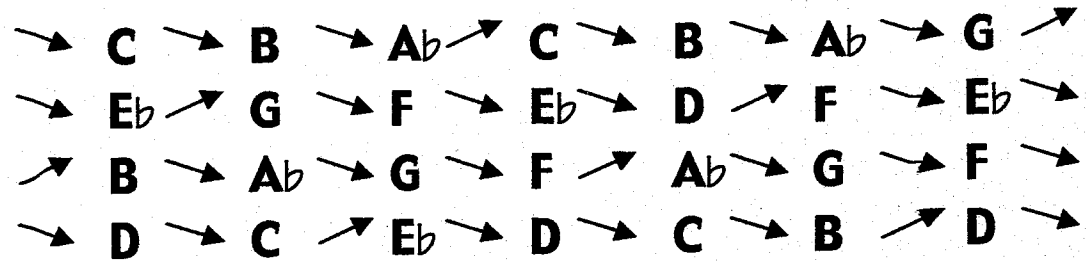
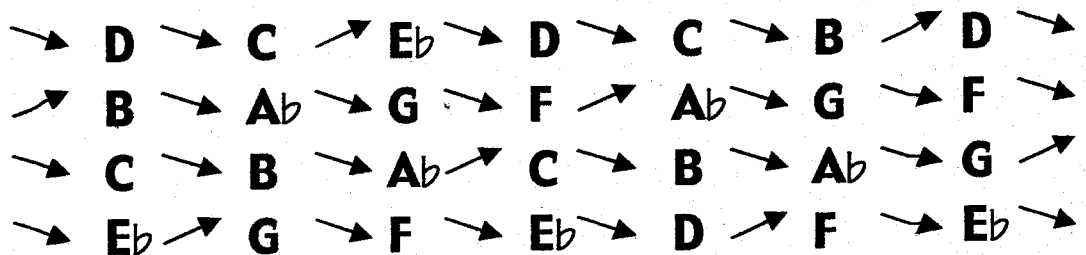
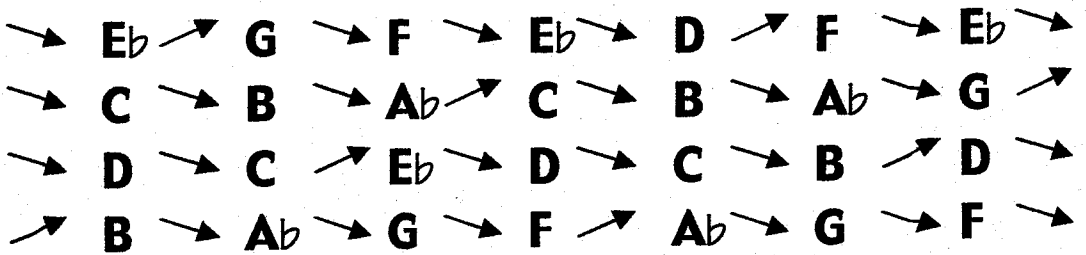
**Intervallic
Voice-Leading**

- 7 → 2nd
- 2 → 2nd
- 3 → 3rd
- 1 → 2nd



**Functional
Voice-Leading**

- 7 → 1
- 2 → 3
- 3 → 7
- 1 → 2



M.S.R.P. $\overline{C B A^b C B}$

||: C B A^b C B A^b G B A^b G F A^b G F E^b G F E^b D F E^b D C E^b D C B D :||



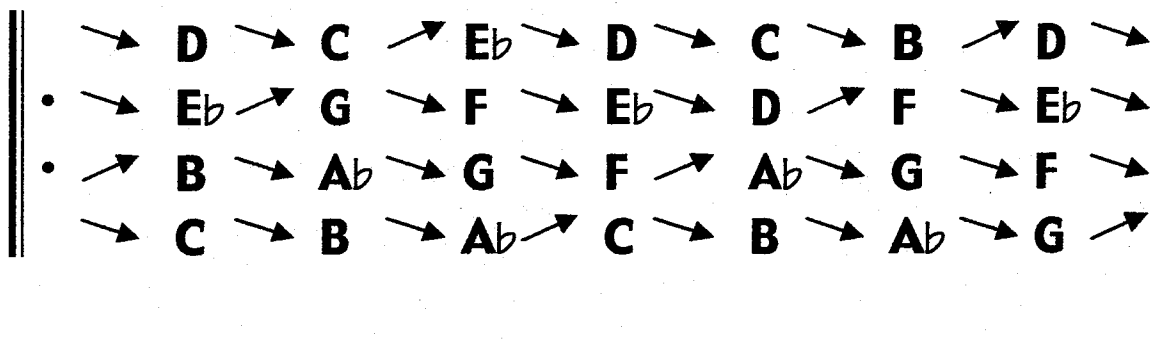
Chord Family: Spread Clusters
Voicing Type: Double Drop 2,
 Drop 3

Cycle: 6

Scale: C harmonic minor

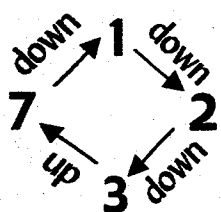
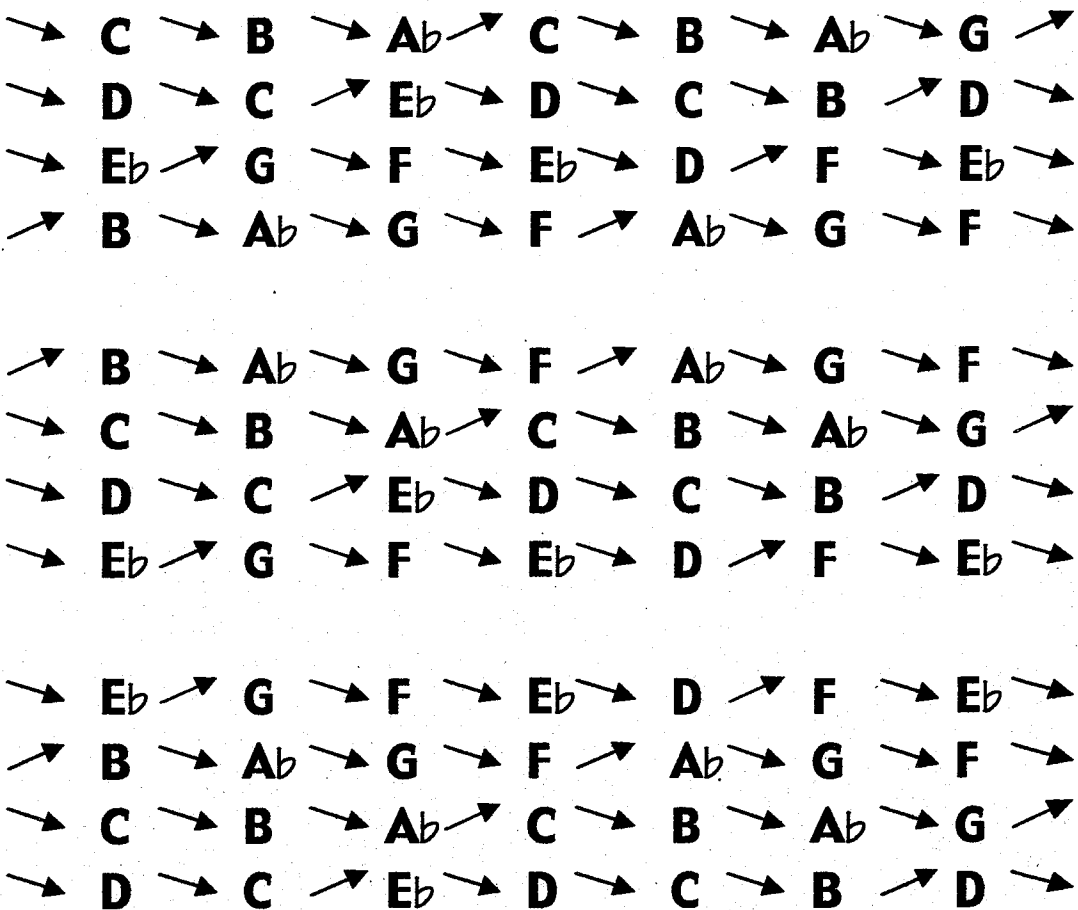
**Intervallic
 Voice-Leading**

2 → 2nd
 3 → 3rd
 7 → 2nd
 1 → 2nd

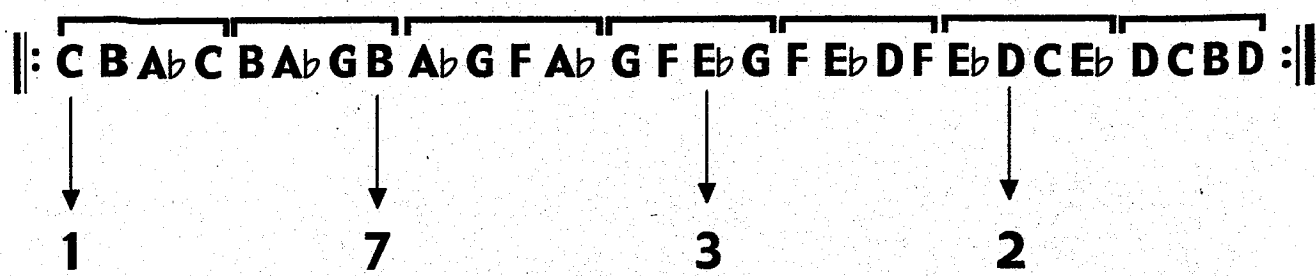


**Functional
 Voice-Leading**

2 → 3
 3 → 7
 7 → 1
 1 → 2



M.S.R.P. $\overline{C B A^b C B}$



Chord Family: Spread Clusters

Cycle: 7

Scale: C harmonic minor

Voicing Type: 4-way close

Intervallic

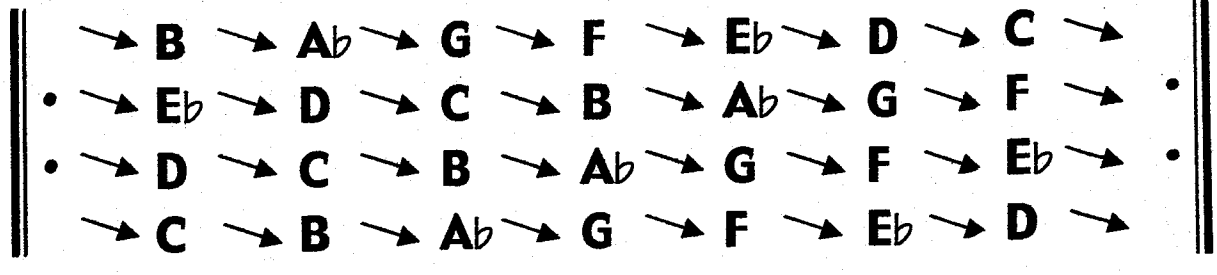
Voice-Leading

7 → 2nd

3 → 2nd

2 → 2nd

1 → 2nd



Functional

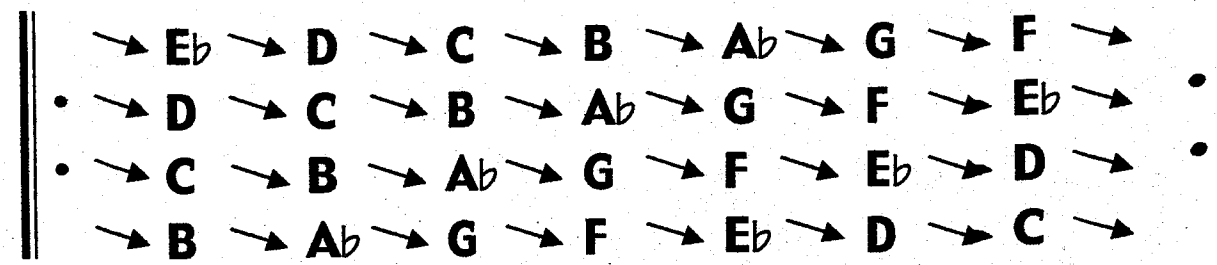
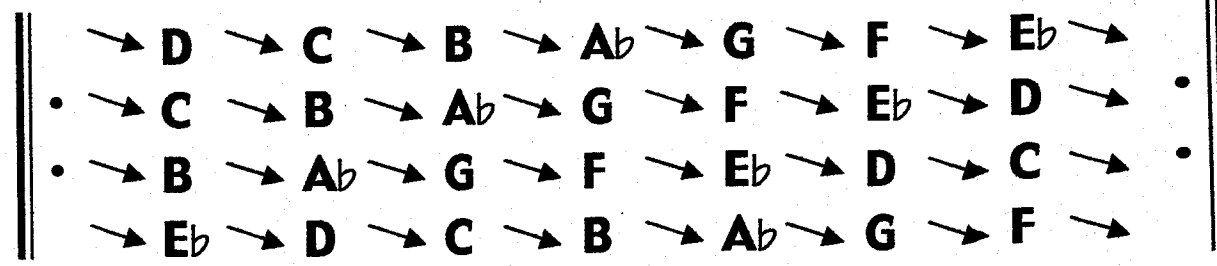
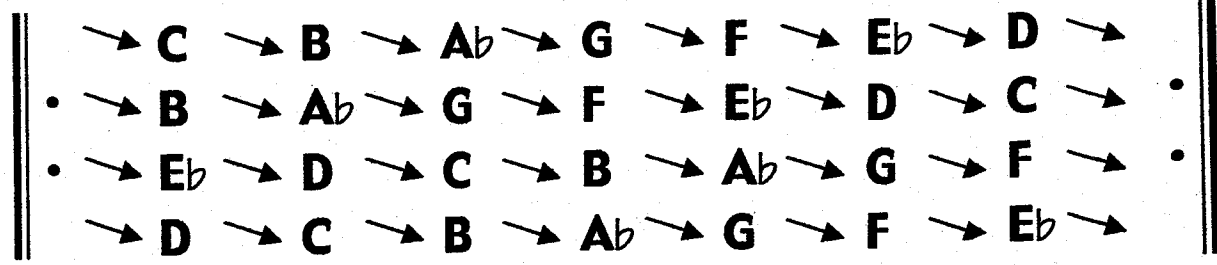
Voice-Leading

7 → 7

3 → 3

2 → 2

1 → 1



Chord Family: Spread Clusters

Cycle: 7

Scale: C harmonic minor

Voicing Type: Drop 2

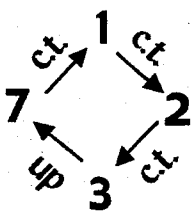
**Intervallic
Voice-Leading**

2 — c.t.
7 — c.t.
3 → 4th
1 — c.t.

—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
• ↗	B	—	B	—	B	—	B	↗	E _b	—	E _b	—	E _b	—
• —	E _b	↗	A _b	—	A _b	—	A _b	—	A _b	↗	D	—	D	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	E _b	↗	A _b	—	A _b	—	A _b	—	A _b	↗	D	—	D	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
↗	B	—	B	—	B	—	B	↗	E _b	—	E _b	—	E _b	—
↗	B	—	B	—	B	—	B	↗	E _b	—	E _b	—	E _b	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
—	E _b	↗	A _b	—	A _b	—	A _b	—	A _b	↗	D	—	D	—
—	E _b	↗	A _b	—	A _b	—	A _b	—	A _b	↗	D	—	D	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
↗	B	—	B	—	B	—	B	↗	E _b	—	E _b	—	E _b	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—
—	C	—	C	—	C	↗	F	—	F	—	F	—	F	↗
↗	B	—	B	—	B	—	B	↗	E _b	—	E _b	—	E _b	—
—	D	—	D	↗	G	—	G	—	G	—	G	↗	C	—

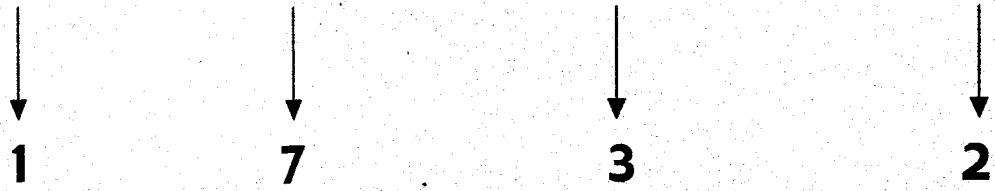
**Functional
Voice-Leading**

2 — 3
7 — 1
3 → 7
1 — 2



M.S.R.P. **CCCFF**

||: C C C F F F B B B E_b E_b E_b A_b A_b A_b A_b D D D D G G G G C :||



Chord Family: Spread Clusters

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2

Intervallic

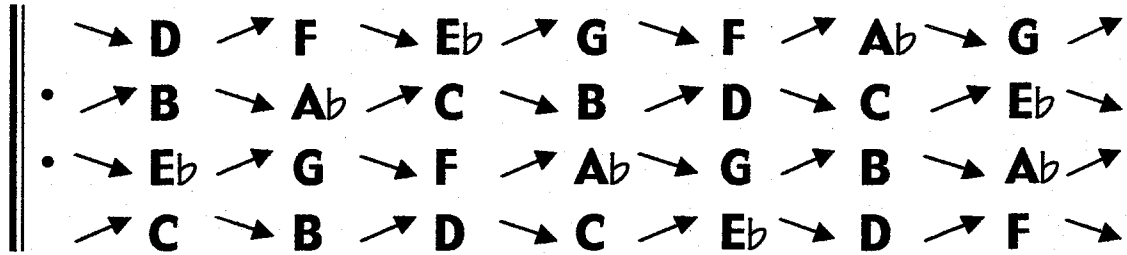
Voicé-Leading

2 → 3rd

7 → 2nd

3 → 3rd

1 → 2nd



Functional

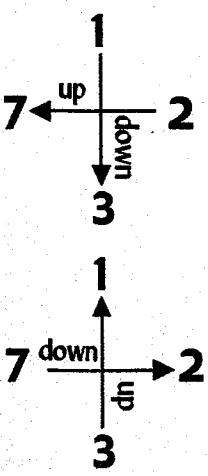
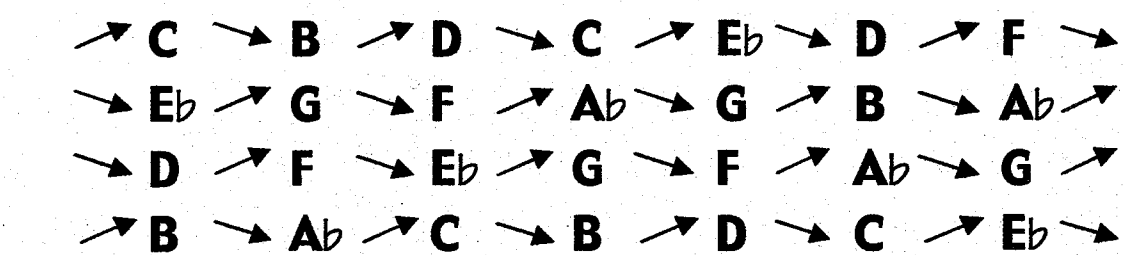
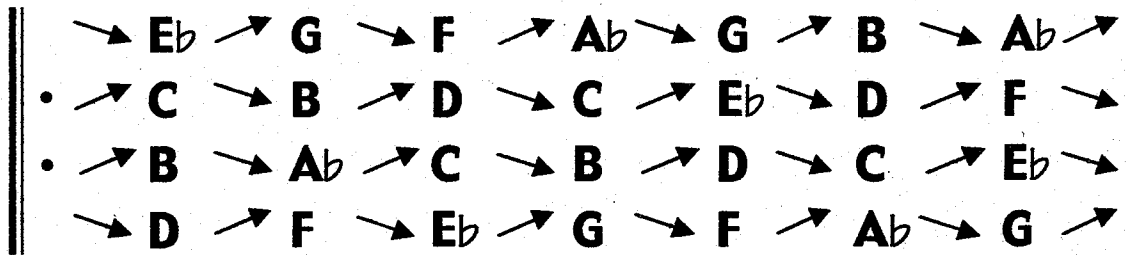
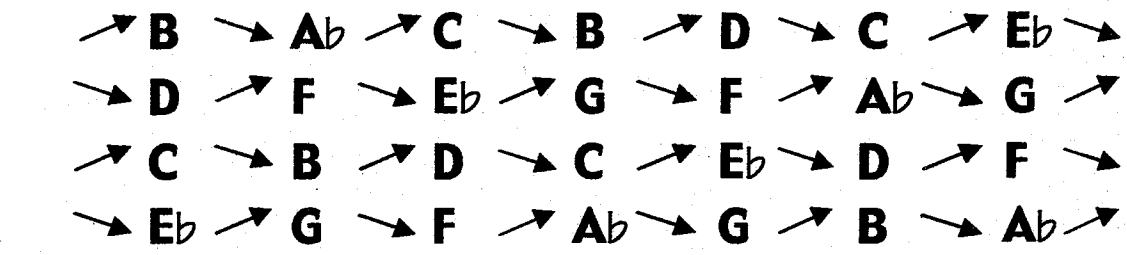
Voicé-Leading

2 → 7

7 → 2

3 → 1

1 → 3



M.S.R.P. 1) $\overbrace{C B D C} Eb$ 2) $\overbrace{D F Eb G} F$

1) $||: C B D C Eb D F Eb G F Ab G B Ab :||$ 2) $||: D F Eb G F Ab G B Ab C B D C Eb :||$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 3

**Intervallic
Voice-Leading**

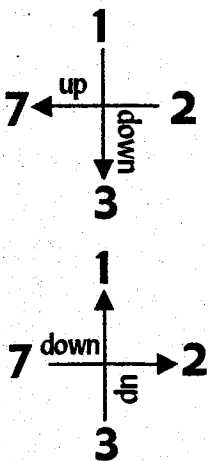
3 → 3rd
2 → 3rd
7 → 2nd
1 → 2nd

→	E _b	→	G	→	F	→	A _b	→	G	→	B	→	A _b	→	
•	→	D	→	F	→	E _b	→	G	→	F	→	A _b	→	G	→
•	→	B	→	A _b	→	C	→	B	→	D	→	C	→	E _b	→
→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→	

**Functional
Voice-Leading**

3 → 1
2 → 7
7 → 2
1 → 3

→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→
→	B	→	A _b	→	C	→	B	→	D	→	C	→	E _b	→
→	D	→	F	→	E _b	→	G	→	F	→	A _b	→	G	→
→	E _b	→	G	→	F	→	A _b	→	G	→	B	→	A _b	→



→	B	→	A _b	→	C	→	B	→	D	→	C	→	E _b	→	
•	→	E _b	→	G	→	F	→	A _b	→	G	→	B	→	A _b	→
•	→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→
→	D	→	F	→	E _b	→	G	→	F	→	A _b	→	G	→	

→	D	→	F	→	E _b	→	G	→	F	→	A _b	→	G	→
→	C	→	B	→	D	→	C	→	E _b	→	D	→	F	→
→	E _b	→	G	→	F	→	A _b	→	G	→	B	→	A _b	→
→	B	→	A _b	→	C	→	B	→	D	→	C	→	E _b	→

M.S.R.P. 1) $\overbrace{C B D C E_b}$ 2) $\overbrace{D F E_b G F}$

1) $\parallel: C B D C E_b D F E_b G F A_b G B A_b \parallel$ 2) $\parallel: D F E_b G F A_b G B A_b C B D C E_b \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2 & 3

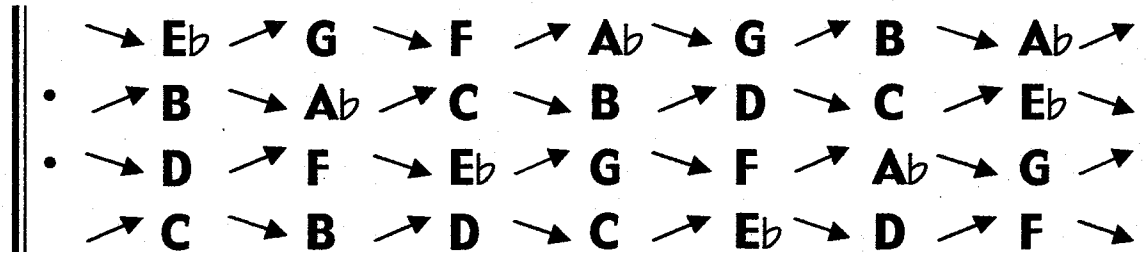
**Intervallic
Voice-Leading**

3 → 3rd

7 → 2nd

2 → 3rd

1 → 2nd



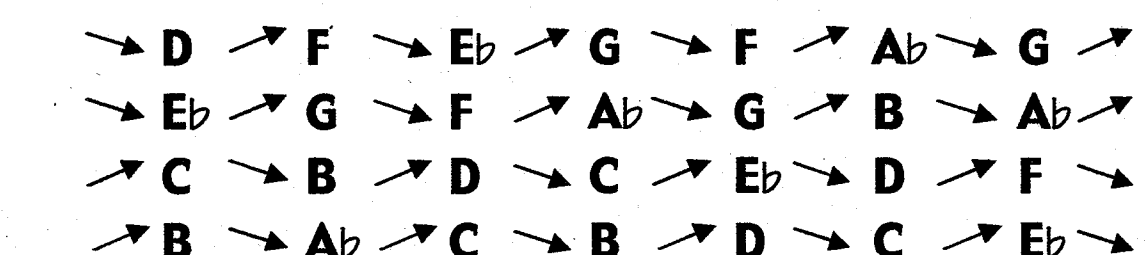
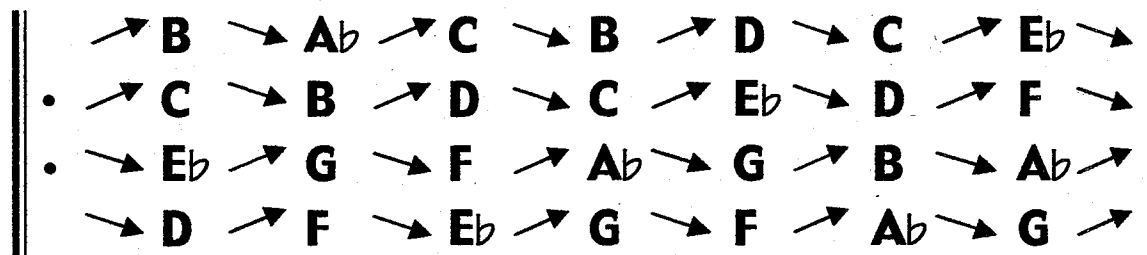
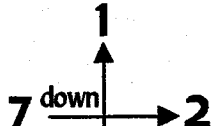
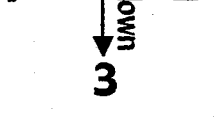
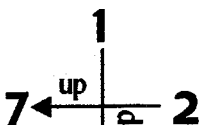
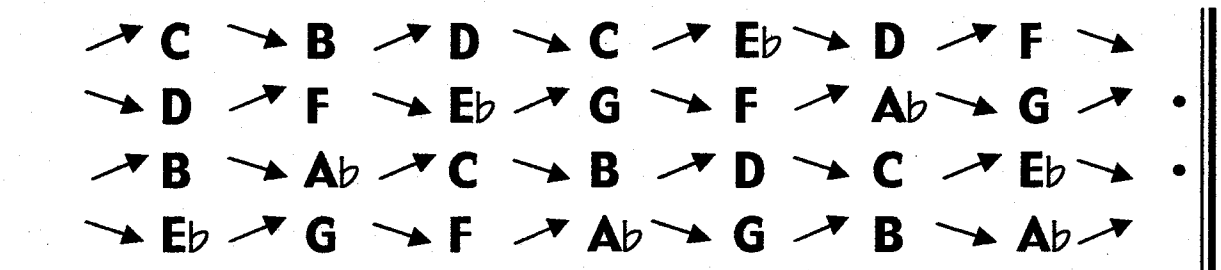
**Functional
Voice-Leading**

3 → 1

7 → 2

2 → 7

1 → 3



M.S.R.P. 1) $\overbrace{C B D C E_b}$ 2) $\overbrace{D F E_b G F}$

1) $\parallel: C B D C E_b D F E_b G F A_b G B A_b: \parallel$ 2) $\parallel: D F E_b G F A_b G B A_b C B D C E_b: \parallel$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

Cycle: 5

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

7 → 2nd
2 → 3rd
3 → 3rd
1 → 2nd

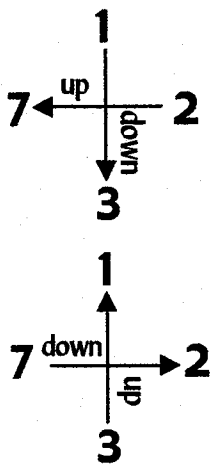
→	B	→	Ab	→	C	→	B	→	D	→	C	→	Eb	→	
•	→	D	→	F	→	Eb	→	G	→	F	→	Ab	→	G	→
•	→	Eb	→	G	→	F	→	Ab	→	G	→	B	→	Ab	→
→	C	→	B	→	D	→	C	→	Eb	→	D	→	F	→	

→	D	→	F	→	Eb	→	G	→	F	→	Ab	→	G	→
→	B	→	Ab	→	C	→	B	→	D	→	C	→	Eb	→
→	C	→	B	→	D	→	C	→	Eb	→	D	→	F	→
→	Eb	→	G	→	F	→	Ab	→	G	→	B	→	Ab	→

**Functional
Voice-Leading**

7 → 2
2 → 7
3 → 1
1 → 3

→	C	→	B	→	D	→	C	→	Eb	→	D	→	F	→	
•	→	Eb	→	G	→	F	→	Ab	→	G	→	B	→	Ab	→
•	→	B	→	Ab	→	C	→	B	→	D	→	C	→	Eb	→
→	D	→	F	→	Eb	→	G	→	F	→	Ab	→	G	→	



→	Eb	→	G	→	F	→	Ab	→	G	→	B	→	Ab	→
→	C	→	B	→	D	→	C	→	Eb	→	D	→	F	→
→	D	→	F	→	Eb	→	G	→	F	→	Ab	→	G	→
→	B	→	Ab	→	C	→	B	→	D	→	C	→	Eb	→

M.S.R.P. 1) $\overbrace{C B D C E b}$ 2) $\overbrace{D F E b G F}$

1) $\parallel: C B D C E b D F E b G F A b G B A b: \parallel$ 2) $\parallel: D F E b G F A b G B A b C B D C E b: \parallel$



Chord Family: Spread Clusters

Cycle: 5

Scale: C harmonic minor

Voicing Type: Double Drop 2,
Drop 3

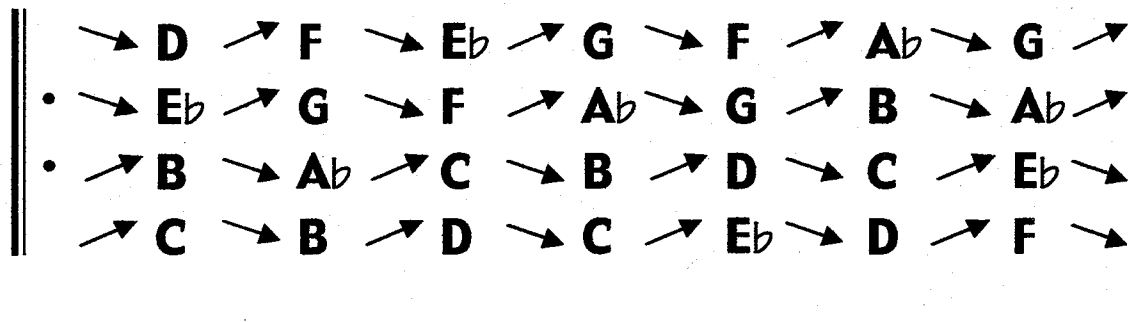
**Intervallic
Voice-Leading**

2 → 3rd

3 → 3rd

7 → 2nd

1 → 2nd



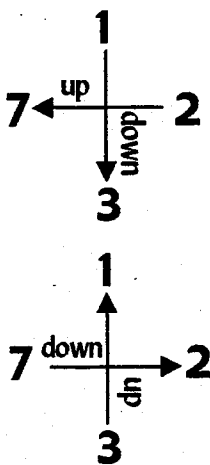
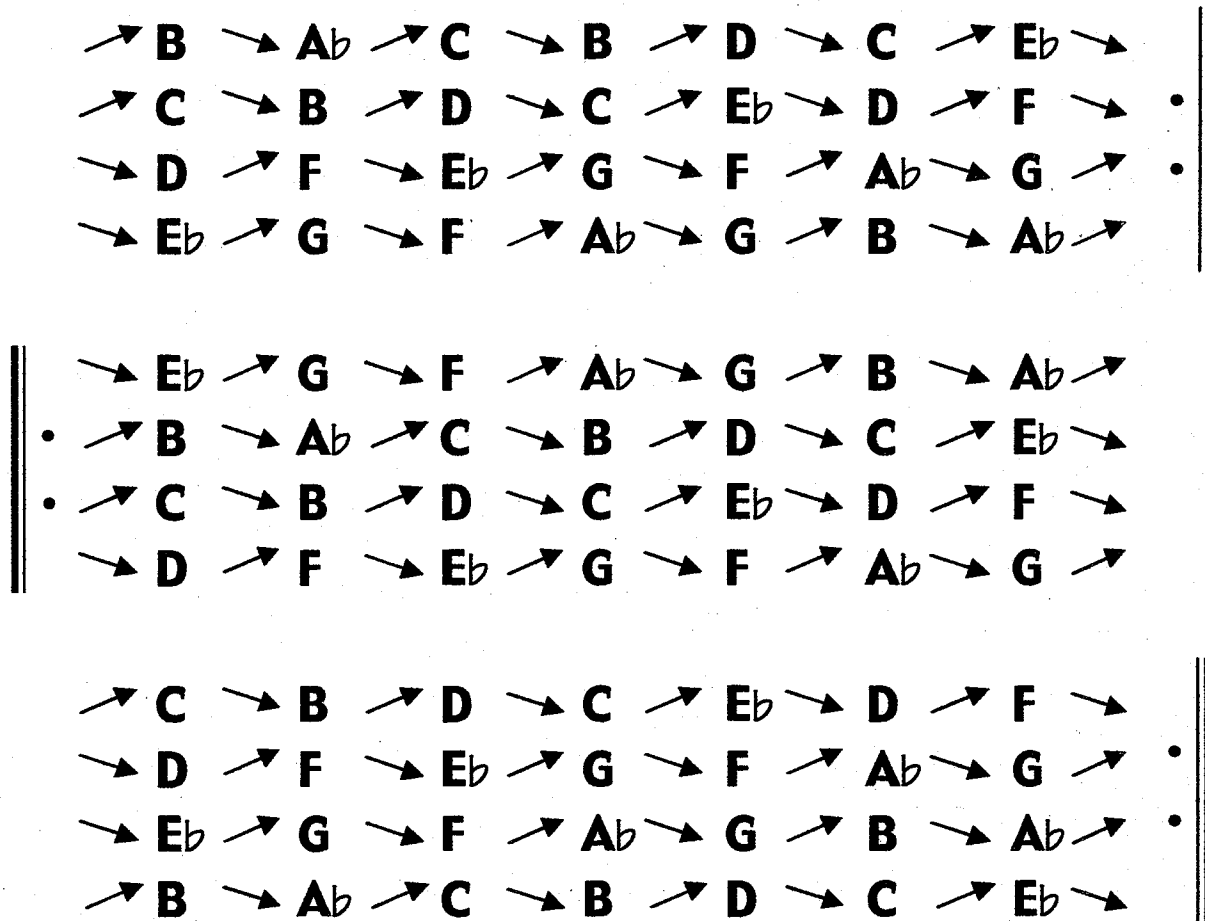
**Functional
Voice-Leading**

2 → 7

3 → 1

7 → 2

1 → 3



M.S.R.P. 1) $\overbrace{C B D C E_b}$ 2) $\overbrace{D F E_b G F}$

1) $||: C B D C E_b D F E_b G F A_b G B A_b :||$ 2) $||: D F E_b G F A_b G B A_b C B D C E_b :||$

↓
1

↓
3

↓
2

↓
7

Chord Family: Spread Clusters

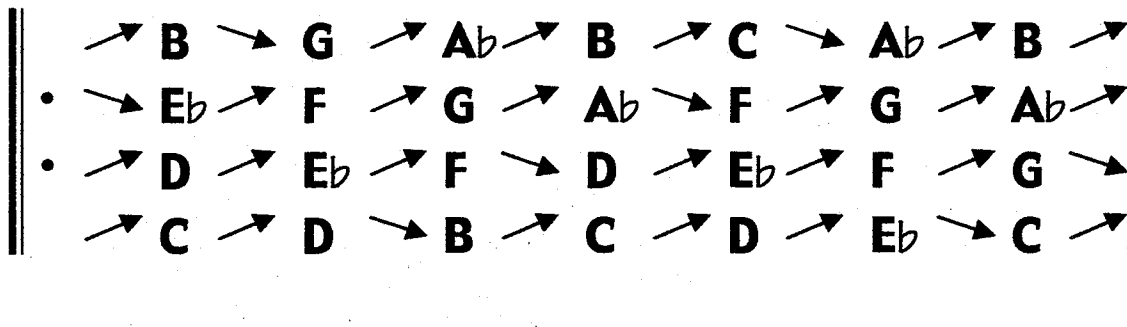
Cycle: 3

Scale: C harmonic minor

Voicing Type: 4-way close

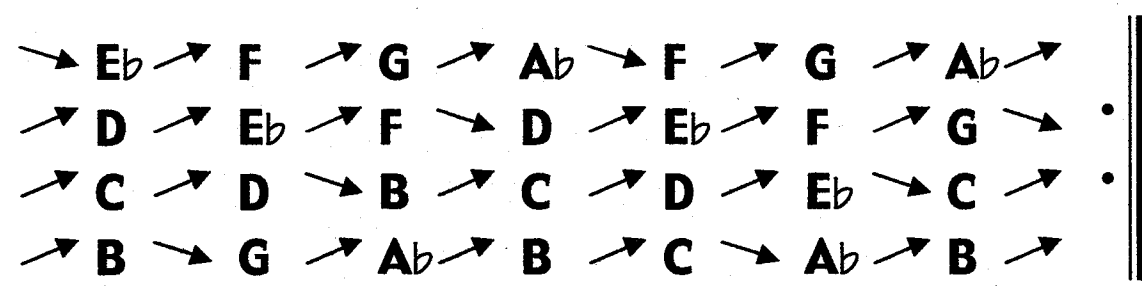
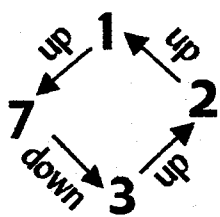
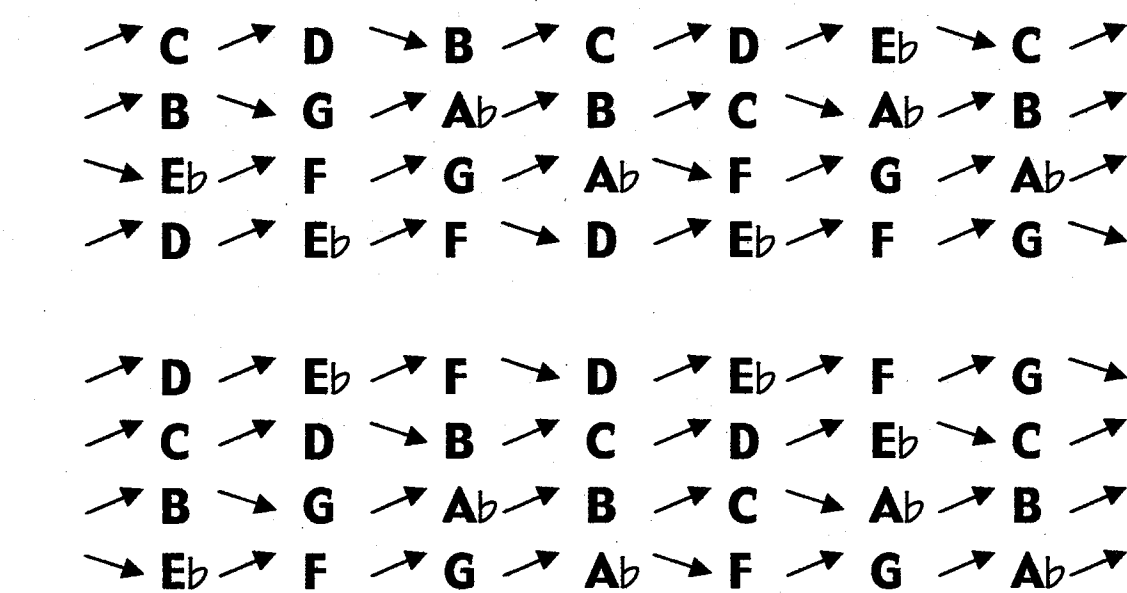
**Intervallic
Voice-Leading**

7 → 3rd
3 → 2nd
2 → 2nd
1 → 2nd



**Functional
Voice-Leading**

7 → 3
3 → 2
2 → 1
1 → 7



M.S.R.P. **C D B C D**

||: C D B C D Eb C D Eb F D Eb F G Eb F G Ab F G Ab B G Ab B C Ab B ||

1 2 3 7

Chord Family: Spread Clusters

Cycle: 3

Scale: C harmonic minor

Voicing Type: Drop 2

**Intervallic
Voice-Leading**

2 → 2nd

7 → 3rd

3 → 2nd

1 → 2nd

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→	
•	→	B	→	G	→	A _b	→	B	→	C	→	A _b	→	B	→
•	→	E _b	→	F	→	G	→	A _b	→	F	→	G	→	A _b	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→	

→	E _b	→	F	→	G	→	A _b	→	F	→	G	→	A _b	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	B	→	G	→	A _b	→	B	→	C	→	A _b	→	B	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→

**Functional
Voice-Leading**

2 → 1

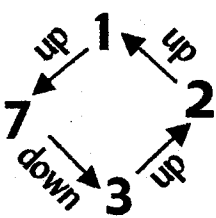
7 → 3

3 → 2

1 → 7

→	B	→	G	→	A _b	→	B	→	C	→	A _b	→	B	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A _b	→	F	→	G	→	A _b	→

→	C	→	D	→	B	→	C	→	D	→	E _b	→	C	→
→	E _b	→	F	→	G	→	A _b	→	F	→	G	→	A _b	→
→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
→	B	→	G	→	A _b	→	B	→	C	→	A _b	→	B	→



M.S.R.P. C D B C D

||: C D B C D E_b C D E_b F D E_b F G E_b F G A_b F G A_b B G A_b B C A_b B:|

↓
1

↓
2

↓
3

↓
7

Chord Family: Spread Clusters

Cycle: 3

Scale: C harmonic minor

Voicing Type: Drop 2 & 4

**Intervallic
Voice-Leading**

- 7 ↘ 3rd
- 2 → 2nd
- 3 → 2nd
- 1 → 2nd

• → B → G → Ab → B → C → Ab → B →

• → D → Eb → F → D → Eb → F → G →

→ Eb → F → G → Ab → F → G → Ab →

→ C → D → B → C → D → Eb → C →

**Functional
Voice-Leading**

- 7 ↘ 3
- 2 → 1
- 3 → 2
- 1 → 7

→ C → D → B → C → D → Eb → C →

→ Eb → F → G → Ab → F → G → Ab →

→ B → G → Ab → B → C → Ab → B →

→ D → Eb → F → D → Eb → F → G →

→ D → Eb → F → D → Eb → F → G →

→ B → G → Ab → B → C → Ab → B →

→ C → D → B → C → D → Eb → C →

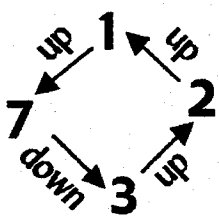
→ Eb → F → G → Ab → F → G → Ab →

→ Eb → F → G → Ab → F → G → Ab →

→ C → D → B → C → D → Eb → C →

→ D → Eb → F → D → Eb → F → G →

→ B → G → Ab → B → C → Ab → B →



M.S.R.P. **C D B C D**

||: C D B C D Eb C D Eb F D Eb F G Eb F G Ab F G Ab B G Ab B C Ab B :||



Chord Family: Spread Clusters

Cycle: 3

Scale: C harmonic minor

Voicing Type: Double Drop 2,
Drop 3

**Intervallic
Voice-Leading**

2 → 2nd

3 → 2nd

7 ↘ 3rd

1 → 2nd

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→	
•	↘	E _b	→	F	→	G	→	A _b	↘	F	→	G	→	A _b	→
•	→	B	↘	G	→	A _b	→	B	→	C	↘	A _b	→	B	→
→	C	→	D	↘	B	→	C	→	D	→	E _b	↘	C	→	

↘	E _b	→	F	→	G	→	A _b	↘	F	→	G	→	A _b	→
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→	B	↘	G	→	A _b	→	B	→	C	↘	A _b	→	B	→
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→	C	→	D	↘	B	→	C	→	D	→	E _b	↘	C	→
---	---	---	---	---	---	---	---	---	---	---	----------------	---	---	---

→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
---	---	---	----------------	---	---	---	---	---	----------------	---	---	---	---	---

**Functional
Voice-Leading**

2 → 1

3 → 2

7 ↘ 3

1 → 7

→	B	↘	G	→	A _b	→	B	→	C	↘	A _b	→	B	→
---	---	---	---	---	----------------	---	---	---	---	---	----------------	---	---	---

→	C	→	D	↘	B	→	C	→	D	→	E _b	↘	C	→
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→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
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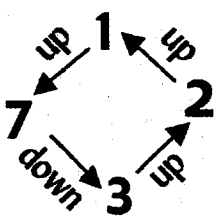
↘	E _b	→	F	→	G	→	A _b	↘	F	→	G	→	A _b	→
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→	C	→	D	↘	B	→	C	→	D	→	E _b	↘	C	→
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→	D	→	E _b	→	F	→	D	→	E _b	→	F	→	G	→
---	---	---	----------------	---	---	---	---	---	----------------	---	---	---	---	---

↘	E _b	→	F	→	G	→	A _b	↘	F	→	G	→	A _b	→
---	----------------	---	---	---	---	---	----------------	---	---	---	---	---	----------------	---

→	B	↘	G	→	A _b	→	B	→	C	↘	A _b	→	B	→
---	---	---	---	---	----------------	---	---	---	---	---	----------------	---	---	---



M.S.R.P. **C D B C D**

||: **C D B C D E_b C D E_b F D E_b F G E_b F G A_b F G A_b B G A_b B C A_b B** ||

↓
1

↓
2

↓
3

↓
7