

C-MAJOR SCALE

C . D . E F . G . A . B
 R . 9 . 3 4 . 5 . 6 . 7

C	.	D	.	E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G	.	A	.	B	C
G	.	A	.	B	C	.	D	.	E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G
D	.	E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G	.	A	.	B	C	.	D
A	.	B	C	.	D	.	E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G	.	A
E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G	.	A	.	B	C	.	D	.	E
B	C	.	D	.	E	F	.	G	.	A	.	B	C	.	D	.	E	F	.	G	.	A	.	B

R	.	9	.	3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5	.	6	.	7	R
5	.	6	.	7	R	.	9	.	3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5
9	.	3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5	.	6	.	7	R	.	9
6	.	7	R	.	9	.	3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5	.	6
3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5	.	6	.	7	R	.	9	.	3
7	R	.	9	.	3	4	.	5	.	6	.	7	R	.	9	.	3	4	.	5	.	6	.	7

CHORDAL MATRIX CUBE USAGE

->	1	b2	2	b3	3	4	b5	5	b6	6	b7	7
1	C	.	D	.	E	F	.	G	.	A	.	B
b2												
2	D	.	E	F	.	G	.	A	.	B	C	.
b3												
3	E	F	.	G	.	A	.	B	C	.	D	.
4	F	.	G	.	A	.	B	C	.	D	.	E
b5												
5	G	.	A	.	B	C	.	D	.	E	F	.
b6												
6	A	.	B	C	.	D	.	E	F	.	G	.
b7												
7	B	C	.	D	.	E	F	.	G	.	A	.

Cube "B" is the Chordal Matrix Cube. Although it is read along the rows from left to right (across columns) as is our previous cube, notice that the interval arrangement in the uppermost row differs dramatically. Instead of the first scale degree being followed by the flatted second (b2nd) interval as in Modal Cube "A", the next interval is the flatted third (b3rd) and then the major 3rd (3) and so on in Chordal Cube "B". Check out the differences.

Chordal Matrix Cube "B" is designed to analyze subject scales quickly and easily for chordal possibilities using any scale degree as a potential chord root. So this cube is ideal if we need to know what chords can be derived directly from our scale. It is extremely important to know which chords are generated by a scale because this can provide valuable insight into it's potential harmonic as well as melodic uses in composition and improvisation.

Say we wanted to determine what harmonies (chords) can be built from a particular scale degree. First we have to find that degree (note) in the cube row's two leftmost columns. For example, let's use degree "1", the "named" root of our scale. This is the "C" note. Reading this row left to right across the columns reveals that this scale generates the following chordal intervals from our root "C": a 3rd "E", 5th "G", 7th "B", 9th "D", an 11th "F" and a 13th "A". These intervals can yield a number of chords based on...that's right, "C Major". We could surely use this scale to play these chords, or over these chords.

I Cube "B"

->	1	b3	3	b5	5	b7	7	b9	9	11	b13	13
1	C	.	E	.	G	.	B	.	D	F	.	A
b2												
2	D	F	.	.	A	C	.	.	E	G	.	B
b3												
3	E	G	.	.	B	D	.	F	.	A	C	.
4	F	.	A	B	C	.	E	.	G	.	.	D
b5												
5	G	.	B	.	D	F	.	.	A	C	.	E
b6												
6	A	C	.	.	E	G	.	.	B	D	F	.
b7												
7	B	D	.	F	.	A	.	C	.	E	G	.

->	1	4	b7	b3	b6	b2	b5	7	3	6	2	5
1	C	F	.	.	.	.	.	B	E	A	D	G
b2												
2	D	G	C	F	.	.	.	.	.	B	E	A
b3												
3	E	A	D	G	C	F	.	.	.	.	.	B
4	F	.	.	.	.	.	B	E	A	D	G	C
b5							G	our root tone, a 3rd "B",				
5	G	C	F	.	.	.	.	.	B	E	A	D
b6												
6	A	D	G	C	F	.	.	.	.	.	B	E
b7												
7	B	E	A	D	G	C	F	.	.	.	.	.

What other harmonies might we make from this scale? Let's see which chords can be built from the fifth tone which is the "G" note. To make "G" our chord root we go down the two leftmost columns to find the "G" row. Reading across this row reveals the following intervals: a 5th "D", a b7th "F", a 9th "A",

an 11th "C" and finally a 13th which is "E". Note the change in interval relationships when using the "G" note as root. The b7th (F note) relationship to the root lets us form or play over Dominant (b7th) type chords containing these intervals. Using a modal approach to each degree is key!