

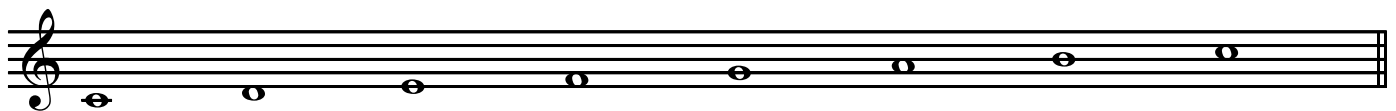
# QUARTAL HARMONY

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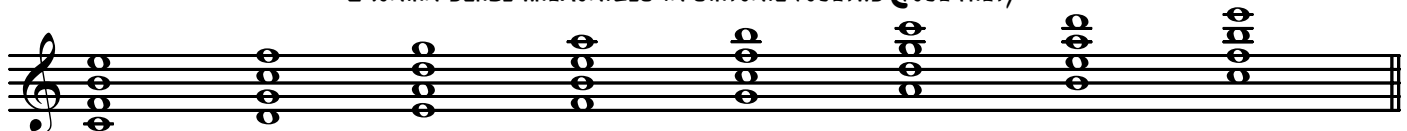
QUARTAL HARMONY IS HARMONY GENERATED BY THE INTERVAL OF A FOURTH. THIS CONCEPT OF JAZZ HARMONY DEVELOPED IN THE MID '50'S AND THE EARLY '60'S, SPURRED ON BY THE WIDESPREAD USE OF MODALISM BY SUCH ARTISTS AS MILES DAVIS AND JOHN COLTRANE. ALREADY LONG IN USE BY "CLASSICAL" COMPOSERS, COMPOSERS OF FILM AND TELEVISION SCORES, AND JAZZ COMPOSER/ARRANGERS FROM THE GIL EVANS SCHOOL, QUARTAL HARMONY BY THE EARLY 1960'S HAD BECOME AN IMPORTANT TOOL IN THE JAZZ VOCABULARY. IN ADDITION TO THE COMPOSER/ARRANGER USAGE, QUARTAL HARMONIC LANGUAGE IN A JAZZ CONTEXT WAS USHERED IN LARGELY BY THE COMPING, IMPROVISING, AND COMPOSITIONS OF PIANISTS BILL EVANS, MCCOY TYNER, HERBIE HANCOCK, AND CHICK COREA, AMONG OTHERS.

WHILE QUARTAL HARMONY CERTAINLY HAS GREAT COMPOSITION AND IMPROVISATIONAL APPLICATIONS, THE FOCUS OF THIS LESSON WILL BE ITS USE IN COMPING. YOU MAY HAVE HEARD THE TERM "COMPING BY SCALE". THAT REALLY DEFINES QUARTAL HARMONY IN COMPING SITUATIONS PERFECTLY. INSTEAD OF USING A TERTIAN VOICED STRUCTURE (CONTAINING GUIDE TONES THAT RELATE TO A SPECIFIC CHORD TYPE) WE COMP UTILIZING A HARMONIZED SCALE (CREATING MULTIPLE HORIZONTAL STRUCTURES) IN FOURTHS THAT RELATE TO THE GIVEN CHORD TYPE. LET'S SAY THE GIVEN CHORD SYMBOL IS C MAJ 7. PLAY THE HARMONIZED C IONIAN SCALE OVER A BASSLINE OUTLINING THE C MAJ7 CHORD. AS ONE MOVES FROM ONE FOURTH STRUCTURE TO ANOTHER, THE OVERALL EFFECT IS AN EBB AND FLOW BETWEEN TENSIONS AND RELEASE TO THE BASIC CHORD TONES (VERTICALLY SPEAKING) CONTAINED IN THE CHORD SCALE.

C IONIAN SCALE (I'LL USE IONIAN AND MAJOR SCALE AS INTERCHANGABLE SCALE NAMES THROUGHOUT THIS LESSON.)



C IONIAN SCALE HARMONIZED IN DIATONIC FOURTHS (FOUR PART)



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NOTICE THAT THE CHORD BUILT ON C IS UNSTABLE AND AMBIGUOUS. THIS C MAJ 7 CHORD FEATURES A  $\sharp 11$  INSTEAD OF THE MORE TYPICAL  $\sharp 11$ . IT BECOMES "NORMALIZED" AS WE PASS THROUGH THE OTHER STRUCTURES FROM THE HARMONIZED SCALE TONES.

IF YOU'VE PLAYED THE PREVIOUS EXAMPLE OF THE HARMONIZED SCALE IN FOURTHS AGAINST CMAT7, I THINK YOU'LL GET THE IDEA PRETTY QUICKLY. HOWEVER WHAT MAKES THIS CONCEPT SO VALUABLE TO US IS THE RELATIONSHIP BETWEEN THE MODES DERIVATIVE FROM (IN THIS CASE) THE PARENT MAJOR SCALE AND ITS RESPECTIVE CHORD ASSOCIATIONS. TO SIMPLIFY: MOST OF US LEARN MODES AS A MELODIC SOURCE TO IMPROVISE OVER PARTICULAR CHORD TYPES WITH. IN THE BASIC CHORD/SCALE RELATIONSHIPS THE CHORD TONES ARE CONTAINED IN THE SCALE THAT WE USE TO IMPROVISE OVER THE GIVEN CHORD WITH. THIS CREATES A STRONG RELATIONSHIP BETWEEN CHORD AND SCALE. HERE ARE THE BASIC SCALE DERIVATIVES (MODES) FROM THE MAJOR SCALE (IONIAN) AND THEIR RELATIONSHIPS TO SOME BASIC CHORD TYPES. THESE ARE VERY BASIC RELATIONSHIPS AND AT THIS STAGE ALL SCALES/MODES RELATE FROM THE SCALE'S TONIC (OR STARTING NOTE) TO THE CHORD TYPES GIVEN FROM THEIR ROOTS.

### THE SEVEN MODES OF THE MAJOR SCALE AND SOME BASIC CHORD RELATIONSHIPS

- I. IONIAN OR MAJOR SCALE USED OVER MAT, MAT6, MAT7, MAT9, MAT13
- II. DORIAN USED OVER MIN, MIN6, MIN7, MIN9, MIN11, MIN13
- III. PHRYGIAN USED OVER 7sus4 b9
- IV. LYDIAN USED OVER MAT 7#11, MAT 9#11, MAT 13#11
- V. MIXOLYDIAN USED OVER 7, 9, 11, 13, 7sus4, 9sus4, 13sus4 (DOMINANT 7TH CHORDS)
- VI. AEOLIAN USED OVER MIN, MIN b6, MIN 7 WITH b13, MIN 9, MIN 11
- VII. LOCRIAN USED OVER -7b5, -7b5 (11),

IF YOU NEED HELP UNDERSTANDING OR CONSTRUCTING MODES, CONSULT MY "HARMONY PRIMER" OR "MODES" LESSON FROM THIS SERIES. IN A NUTSHELL, ALL OF THE CHORDS AND MODES LISTED ABOVE ARE DIATONIC TO A MAJOR SCALE. IN THE KEY OF C MAJOR THE ABOVE CHORDS/SCALES WOULD BE NAMED LIKE THIS:

- I. C IONIAN OR MAJOR SCALE USED OVER CMAT, CMAT6, CMAT7, CMAT9, CMAT13
- II. D DORIAN USED OVER DMIN, DMIN6, DMIN7, DMIN9, DMIN11, DMIN13
- III. E PHRYGIAN USED OVER E7sus4b9
- IV. F LYDIAN USED OVER FMAT 7#11, FMAT 9#11, FMAT 13#11
- V. G MIXOLYDIAN USED OVER G7, G9, G11, G13, G7sus4, G9sus4, G13sus4 (DOMINANT 7TH CHORDS)
- VI. A AEOLIAN USED OVER AMIN, AMINb6, AMIN7 WITH b13, AMIN 9, AMIN 11
- VII. B LOCRIAN USED OVER B-7b5, B-7b5 (11)

WITH THE HARMONIZED SCALE IN FOURTHS WE'LL REVISIT THE ABOVE CHORD/SCALE RELATIONSHIPS HORIZONTALLY. WE'VE ALREADY TRIED THE C IONIAN IN FOURTHS OVER C MAT 7, NOW LET'S TRY IT OVER D-7 (NOTES OF THE C IONIAN FROM D TO D) WHICH CREATES A HARMONIZED DORIAN SCALE. ALSO, TRY THE D DORIAN OVER G7 WHICH CREATES A 7 sus 4 QUALITY.

D-7

5

YOU'LL NOTICE THAT THE PRECEDING EXAMPLE IS JUST THE C IONIAN SCALE AND ITS STRUCTURES STARTING FROM D. WHEN CREATING MODES THERE ARE BASICALLY TWO WAYS OF RECKONING THE NOTES. THE EASIER OF THE TWO IS TO THINK FROM THE PARENT SCALE AND ITS KEY SIGNATURE. WITH THIS METHOD ONE JUST APPLIES THE PARENT SCALE'S KEY SIGNATURE TO THE SEQUENCE OF TONES THAT STARTS FROM ONE OF THE PARENT SCALE'S NOTES. NOTICE THAT THE PRECEDING MODES FROM THE MAJOR SCALE ARE GIVEN ROMAN NUMERALS I, II, III, IV, ETC. STARTING FROM THE 3RD NOTE (III) OF A MAJOR SCALE AND KEEPING THE SEQUENCE OF THE SEVEN NOTES DIATONIC FROM E TO E CREATES A PHRYGIAN SCALE (OR IN THE KEY OF C MAJOR, AN E PHRYGIAN SCALE). THE OTHER METHOD IS CALLED PARALLEL CONSTRUCTION, AND SCALES/MODES ARE GENERATED VIA A NUMBER SEQUENCE (OR FORMULA). THESE NUMBERS REFER TO THE NOTES OF A HYPOTHETICAL MAJOR SCALE THAT HAS BEEN ALTERED TO UTILIZE THE FORMULA FOR A GIVEN SCALE TYPE. FOR INSTANCE, THE FORMULA NUMERICALLY FOR A PHRYGIAN MODE IS: 1, b2, b3, 4, 5, b6, b7. THE NOTES SPELLED ALPHABETICALLY (FROM E) WOULD BE: E, F, G, A, B, C, D, E.

THE "FLATTED" OR IN THIS CASE "NATURALED" NOTES OF THE E PHRYGIAN SCALE RESULTED FROM LOWERING THE 2ND, 3RD, 6TH, AND 7TH DEGREES OF AN E MAJOR SCALE (E, F#, G#, A, B, C#, D#). EITHER WAY YOU LOOK AT IT, ONE HAS TO HAVE GOOD CONTROL OF MANIPULATING MAJOR SCALES AND THEIR KEY SIGNATURES TO CREATE PARALLEL OR DERIVATIVE SCALES. BY THE WAY, WE'RE JUST TALKING ABOUT MAJOR SCALES SO FAR. LATER WE'LL LOOK AT OTHER PRIMARY SEVEN-TONE SCALES, SUCH AS MELODIC MINOR, HARMONIC MINOR, AND HARMONIC MAJOR THAT ACT AS A PARENT SCALE GENERATING THEIR OWN UNIQUE SET OF MODES. BUT BEFORE YOU TRY THE OTHER SCALES START WITH THE MAJOR SCALE HARMONIZED FROM AND PLAYED AGAINST ALL THE CHORDS/MODES LISTED ABOVE, THEN TRY TRANSPOSING THESE RELATIONSHIPS TO OTHER KEYS AND CHORD ROOTS.

DON'T LET THE THEORY SPEAK TURN YOU OFF. IT'S IMPORTANT TO HAVE CONTROL OF THIS STUFF, BUT IN THE END YOUR EAR AND TACTILE SENSE (MUSCLE MEMORY) WILL TAKE OVER. FOURTH CHORD SHAPES ARE BASICALLY BUILT AROUND FIVE SHAPES THAT USE FOUR NOTES (TRY PARING THESE SHAPES DOWN TO 3 NOTES AND ALSO ADDING ON TO GET FIVE NOTE FORMS). THE FOUR NOTE VERSIONS ARE EASILY PLAYED ON FOUR CONSECUTIVE STRINGS FROM THE FIFTH STRING OR FOURTH STRING. ALL EXAMPLES ARE BUILT ON THE PITCH "C". THEY LOOK LIKE THIS FROM THE FIFTH STRING:

\* C Δ7(11)      C Δ7(#11)      \*\* D 13(#9)      C sus4(addt10)      C-7(11)

\* 11s CAN BE THOUGHT OF AS 4

THE MAJOR SCALE SHAPES INCLUDE ALL BUT THE ONE IN THE MIDDLE\*\*. THIS DOUBLE TRITONE CHORD WORKS BEST IN DOMINANT 7TH APPLICATIONS AND IN THIS CASE FROM A NON "C" ROOT. NOTICE THAT ALL THE CHORDS ARE MADE UP OF PERFECT FOURTH OR TRITONE INTERVALS. OTHER SCALES SUCH AS HARMONIC MINOR AND HARMONIC MAJOR NECESSITATE THE SPELLING OF THE OCCASIONAL DIMINISHED FOURTH INTERVAL. THIS WILL ALTER SOME SHAPES OF THE BASIC FIVE ABOVE (TO KEEP STRUCTURES DIATONIC TO THE SCALE). RESULTING WILL BE SOME FAMILIAR TERTIAN GRIPS, BUT YOU CAN STILL "THINK" IN FOURTHS. HERE ARE THE FOUR SEVEN-TONE SCALES WE USE IN BERKLEE'S GUITAR SYLLABI HARMONIZED IN FOURTHS. ALL EXAMPLES ARE BUILT ON "C".

# FOUR SEVEN-TONE SCALES HARMONIZED IN DIATONIC FOURTHS

## IONIAN OR MAJOR SCALE

3fr. 5fr. 7fr. 8fr. 10fr. 12fr. 14fr. 15fr.

C $\Delta$ 7(11) D-7(11) E-7(11) F $\Delta$ 7(#11) G sus4(addt10) A-7(11) B-7(11) C $\Delta$ 7(11)

The diagram shows eight fretboard diagrams for the Ionian scale, each with a specific chord voicing. Below them is a musical staff in treble clef with a key signature of one sharp (F#), showing the scale notes (C4 to C5) grouped into diatonic fourths.

## MELODIC MINOR SCALE

3fr. 5fr. 6fr. 8fr. 10fr. 12fr. 13fr. 15fr.

C-maj7(11) D-7(11) E $\flat$  $\Delta$ 7(#11) F7#11 G sus4(addt10) A-7(11) B7(#9) C-maj7(11)

The diagram shows eight fretboard diagrams for the Melodic Minor scale. Below them is a musical staff in treble clef with a key signature of two flats (Bb), showing the scale notes (C4 to C5) grouped into diatonic fourths.

## HARMONIC MINOR SCALE

3fr. 5fr. 6fr. 8fr. 10fr. 11fr. 13fr. 15fr.

C-maj7(11) D-7(11) E $\flat$  $\Delta$ 7(11) F-7 $\flat$ 5 G sus4(addt10) A $\flat$  $\Delta$ 7(#11) B Maj6(#9) C-maj7(11)

\*\* ENHARMONICALLY SPOelled FOR SIMPLICITY

The diagram shows eight fretboard diagrams for the Harmonic Minor scale. Below them is a musical staff in treble clef with a key signature of two flats (Bb), showing the scale notes (C4 to C5) grouped into diatonic fourths. A note in the F-7b5 chord is marked with double asterisks (\*\*).

## HARMONIC MAJOR SCALE

3fr. 5fr. 6fr. 8fr. 10fr. 11fr. 13fr. 15fr.

C $\Delta$ 7(11) D-7(11) E7(#9) E/F G sus4(addt10) A $\flat$  $\Delta$ 7(#11) E7/B C $\Delta$ 7(11)

The diagram shows eight fretboard diagrams for the Harmonic Major scale. Below them is a musical staff in treble clef with a key signature of one sharp (F#), showing the scale notes (C4 to C5) grouped into diatonic fourths.

AS YOU CAN SEE, SOME OF THE ANALYSIS GETS PRETTY WACKY WHEN USING HARMONIC MAJOR/MINOR. I'VE BROKEN IT DOWN TO SOME FAMILIAR TERTIAN STRUCTURES OR SLASH CHORDS IN THOSE CASES. EACH OF THE PRECEDING HARMONIZED SCALES CAN BE PLAYED OVER ANY CHORD CONTAINED IN THAT SCALE'S RESULTANT HARMONIES. FOR INSTANCE, RECORD A E7#9 VAMP AND PLAY THE C HARMONIC MAJOR HARMONIZED IN 4THS OVER IT. TRY THE SCALE FROM THE E7#9 ROOT (E TO E) AND STARTING FROM OTHER TONES IN THE "C" SCALE AS WELL. THIS IS A GOOD PLACE TO BEGIN, LISTENING TO THE SOUNDS GENERATED FROM A HARMONIZED SCALE OVER THE INDIVIDUAL CHORD TYPES CONTAINED IN THE SCALE'S RESULTANT HARMONY. IT'S ALSO A REALLY BIG JOB WITH MULTIPLE CHOICES OF SCALE FOR MANY CHORD TYPES. HOW DOES ONE ORGANIZE? AS SIMPLY AS POSSIBLE! START WITH THE MAJOR SCALE, (IN MULTIPLE KEYS) EXHAUST IT'S POSSIBILITIES AND THEN MOVE ON TO MELODIC MINOR ETC. IT'S ALSO VERY IMPORTANT TO GAIN PERSPECTIVE IN USAGE BY LISTENING TO SOME OF THE PIANISTS I'VE ALREADY MENTIONED AS WELL AS GUITARISTS LIKE MIKE STERN AND JOHN SCOFIELD, AND ESPECIALLY ORGANIST LARRY YOUNG. ONE THING YOU'LL NOTICE IMMEDIATELY IS THAT THESE GUYS DON'T PLAY THE ENTIRE HARMONIZED SCALE FROM BEGINNING TO END. SOMETIMES USING JUST TWO OR THREE STRUCTURES FROM A "KEY OF THE MOMENT" (AND THE "KEY" CAN CHANGE WITH EACH CHORD) DOES THE TRICK. PAY ATTENTION TO MELODIC VOICE-LEADING, USE OF SEQUENTIAL MELODIC IDEAS THAT ARE HARMONIZED, ETC.

OVER D-7

OVER D-7 (STRUCTURES I, II, AND III OF D DORIAN OR II, III, AND IV OF C IONIAN)

NOW THAT WE HAVE SOME TOOLS TO WORK WITH, LET'S SUM UP HOW TO GET STARTED:

- EXPERIMENT WITH AND IMITATE WHAT YOU HEAR ON RECORDINGS. RECORDS LIKE COLTRANE'S "COMPLETE 1961 VILLAGE VANGUARD RECORDINGS" (WITH MCCOY TYNER ON PIANO) WILL GIVE YOU LOTS OF IDEAS TO WORK WITH. EMULATE THE RHYTHMS AND NUMBER OF STRUCTURES BEING USED IN SAY, A FOUR BAR PHRASE. AND WHILE VAMPS ARE A VERY GOOD PLACE TO BEGIN, INTEGRATE YOUR NEW VOCABULARY INTO CYCLES SUCH AS I-VI-II-V AND II-V-I. THEN TRY A JAZZ STANDARD.
- TRY WRITING TO DEVELOP WORKABLE IDEAS THAT YOU CAN RECYCLE INTO OTHER TUNES.
- THINK CONTEXT. THESE SOUNDS TEND TO BE MODERN IN QUALITY AND FIT VERY WELL WITH PENTATONIC LANGUAGE FOR INSTANCE (CHECK OUT MCCOY!). LATER AS A DEVIATION FROM THE SEVEN TONE-SCALES THAT WE'RE STARTING WITH, TRY HARMONIZING PENTATONIC, WHOLE-TONE, AND OTHER NON-SEVEN-TONE SCALES. YOU'LL COME UP WITH SOME VERY COOL SOUNDS! REMEMBER THOUGH, THAT THESE SOUNDS MIGHT NOT BE APPROPRIATE FOR OLDER JAZZ STYLES. USE YOUR EARS AND STUDY JAZZ STYLES BY PERIOD TO GAIN A SENSE OF APPROPRIATE USAGE.
- AND LASTLY, EVEN IN A "FUSION" OR "MODERN JAZZ" CONTEXT ONE DOESN'T HAVE TO USE FOURTH STRUCTURES EXCLUSIVELY. MIXING TERTIAN STRUCTURES WITH THE QUARTAL MAKES FOR A NICE "PALLET" OF HARMONIC COLORS. THE TERTIAN CHORDS WILL "NAIL-DOWN" THE CHORD QUALITY, WHILE THE QUARTAL WILL BE MORE AMBIGUOUS AND ACHIEVE SOME NICE PASSING CHORD MOVEMENT. HERE'S AN EXAMPLE OF COMPING INTEGRATING BOTH TYPES INTO THE JAZZ STANDARD "STELLA". ALL FOURTH CHORDS STRUCTURES WILL BE DERIVED FROM MAJOR SCALES/MODES USED IN A "KEY OF THE MOMENT" SENSE. NOTICE THAT THE FOURTH CHORD SEGMENTS ARE VERY OBVIOUS. KEEP YOUR OWN EXAMPLES SIMPLE TOO. LATER, YOU CAN GET MORE COMPLEX, RHYTHMICALLY DARING, ETC. FOR RIGHT NOW, GET THE CONCEPT DOWN. ANALYZE, BORROW, LISTEN, AND INTEGRATE INTO YOUR OWN VERSIONS! ALL CHORD SYMBOLS ARE BROKEN DOWN TO BASIC STRUCTURES. YOU DO THE ANALYSIS! PLAY OVER RECORDED/SEQUENCED BASSLINE AND METRONOME CLICKING ON 2 & 4.

# STELLA

SWINGIN' E-7<sup>b</sup>5 A7alt C-7 F7

F-7 B<sup>b</sup>7 E<sup>b</sup>Maj7 A<sup>b</sup>7

B<sup>b</sup>Maj7 E-7<sup>b</sup>5 A7alt D-7 B<sup>b</sup>-7 E<sup>b</sup>7

F<sup>b</sup>Maj7 F<sup>#</sup>7 G-7 G<sup>#</sup>7 A-7<sup>b</sup>5 D7(#9)

G7(#5) C-7

A<sup>b</sup>7 #11 B<sup>b</sup>Maj7

E-7<sup>b</sup>5 A7(b9) D-7<sup>b</sup>5 G7(b9)

C<sup>#</sup>-7 F<sup>#</sup>7 C-7 F7(b9) B<sup>b</sup>Maj7

The musical score for 'STELLA' is presented in a single staff with a treble clef and a key signature of two flats (Bb and Eb). The tempo and mood are indicated as 'SWINGIN'. The score consists of eight lines of music, each with a series of chords written above the staff. The chords are: Line 1: E-7<sup>b</sup>5, A7alt, C-7, F7. Line 2: F-7, B<sup>b</sup>7, E<sup>b</sup>Maj7, A<sup>b</sup>7. Line 3: B<sup>b</sup>Maj7, E-7<sup>b</sup>5, A7alt, D-7, B<sup>b</sup>-7, E<sup>b</sup>7. Line 4: F<sup>b</sup>Maj7, F<sup>#</sup>7, G-7, G<sup>#</sup>7, A-7<sup>b</sup>5, D7(#9). Line 5: G7(#5), C-7. Line 6: A<sup>b</sup>7 #11, B<sup>b</sup>Maj7. Line 7: E-7<sup>b</sup>5, A7(b9), D-7<sup>b</sup>5, G7(b9). Line 8: C<sup>#</sup>-7, F<sup>#</sup>7, C-7, F7(b9), B<sup>b</sup>Maj7. The score includes various rhythmic notations such as eighth notes, quarter notes, and half notes, along with dynamic markings like accents (>) and slurs. There are also some slash marks (/) indicating specific rhythmic or articulation points.