

HARMONIC PLUMBING

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I BORROWED THE TERM "HARMONIC PLUMBING" FROM THE LINER NOTES OF A BILL EVANS ALBUM. IN PLUMBING, ONE CAN FIND ANY NUMBER OF DIFFERENT ROUTES TO CONNECT WATER FROM ONE POINT TO ANOTHER WITH MYRIAD VARIATIONS ALONG THE WAY. LIKEWISE, IN MUSIC THERE ARE MANY WAYS TO CONNECT HARMONY FROM ONE POINT TO ANOTHER, OR SUBSTITUTE AND SUPERIMPOSE NEW CHORDS AND CHORD SEQUENCES IN PLACE OF THE ORIGINAL HARMONY. HENCE THE ANALOGY. HARMONIC PLUMBING CONVENIENTLY DESCRIBES THE CONCEPTS OF HARMONIC SUBSTITUTION AND SUPERIMPOSITION THAT I'D LIKE TO COVER IN THIS LESSON. THESE IDEAS ARE USABLE IN ARRANGING, COMPING, AND SOLOING ESPECIALLY.

THE WAY I SEE IT, A GUITARIST MIGHT WANT TO FOLLOW A METHODOICAL SEQUENCE OF HARMONIC STUDY TO ADVANCE RAPIDLY. I SUGGEST:

1. LEARN HOW TO CONSTRUCT AND IMPLEMENT BASIC TRIADS AND DROP 2/DROP 3 SEVENTH CHORD VOICINGS.
2. LEARN HOW TO "COLORIZE" BASIC SEVENTH CHORD VOICINGS THROUGH THE USE OF TENSIONS.
3. LEARN HARMONIC CONNECTIVITY (HARMONIC PLUMBING).
4. STUDY OF QUARTAL AND OTHER NON-TERTIAN HARMONIC CONCEPTS.
5. APPLY THE ABOVE TO REAL-LIFE PLAYING SITUATIONS, EAR TRAINING, ARRANGEMENTS, ETC. AND FIND EXAMPLES OF THEIR USAGE IN THE RECORDINGS OF THE JAZZ MASTERS.
6. EXPERIMENT AND FIND YOUR OWN PERSONAL APPROACH TO THESE SUBJECTS.

WITH THAT SAID, I'LL JUST MENTION THAT THE ABILITY TO HEAR AND IMPLEMENT THESE IDEAS MUSICALLY IS WHAT MATTERS MOST. IF YOU'RE NOT GREAT AT READING MUSIC OR MUSIC THEORY, DON'T QUIT NOW. MANY GREAT PLAYERS PICKED THIS STUFF UP BY EAR AND DO JUST FINE! WES MONTGOMERY COMES IMMEDIATELY TO MIND FOR INSTANCE. THE MAIN THING IS TO MAKE MUSIC WITH THIS MATERIAL!

ONE LAST ISSUE: THESE CONNECTIVITY IDEAS ARE JUST POSSIBILITIES TO AUGMENT YOUR HARMONIC PALETTE. YOUR EAR ULTIMATELY MAKES THE CHOICE AS TO THEIR USEFULNESS. SOME OF THESE IDEAS MIGHT BE A LITTLE TOO "OUTSIDE" FOR CERTAIN SITUATIONS. YOUR KNOWLEDGE OF LISTENING EXPERIENCE WILL HELP GUIDE YOU. PERSONAL TASTE ENTERS INTO THIS, TOO! USE YOUR EARS.

HARMONIC PLUMBING

#1 ANY 11-7 FOR/WITH A V7 FROM KEY OF THE MOMENT

FOR INSTANCE:

SEE A D-7 PLAY G7 OR COMBINATION D-7 AND G7

SEE A G7 PLAY D-7 OR COMBINATION D-7 AND G7

THIS FIRST IDEA HAS GIGANTIC POSSIBILITIES FOR YOUR ARRANGING, COMPING, AND SOLOING. I FIRST NOTICED THIS SOUND IN WES MONTGOMERY'S COMPING AND CHORD SOLOS. IN A MODAL SITUATION SUCH A TUNE LIKE JOHN COLTRANE'S "IMPRESSIONS", I NOTICED WES USING 11/V PAIRINGS OVER THE BASIC HARMONY OF THE STATED D-7 IN THE FAKE BOOK.

GIVEN CHORD D-7

D-7 G13 D-11 G7 D-9 G9 D-11 G9

11/V PLAYED TRY THESE 11/V PAIRINGS OVER A WALKING D- BASSLINE

THE OVERALL EFFECT IS A SMALL AMOUNT OF TENSION AND RELEASE-A DESIRABLE EFFECT TO CREATE INTERESTING COMPING. YOU'LL NOTICE THAT I'VE ONLY USED DIATONIC TENSIONS (DIATONIC TO MIXOLYDIAN FOR 7TH AND DORIAN FOR MINOR 7TH) ON THESE CHORDS, BUT EXPERIMENT WITH "ALTERED" AND NON-DIATONIC TENSIONS AS WELL.

THIS 11-7 FOR/WITH A V7 CHORD FORMULA IS INVALUABLE FOR SOLO IDEAS AS WELL AS COMPING, ETC. I ONCE HEARD A JAZZ MUSICIAN STATE THAT THE "CHORD IS THE LINE AND THE LINE IS THE CHORD". THE 11-7 FOR/WITH A V7 PUTS THIS OLD SAW TO WORK! USING SCALES OR CHORD OUTLINES (ARPEGIOS) ONE CAN PLAY A MINOR LINE OVER A DOMINANT 7TH CHORD, A DOMINANT 7TH LINE OVER A MINOR 7TH CHORD, A COMBINATION OF BOTH OVER DOMINANT 7TH OR MINOR 7TH CHORDS, OR YOU CAN "SIMPLIFY" EXISTING 11-7 TO V7 PROGRESSIONS TO BEING EITHER DOMINANT OR MINOR LINE CONTENT.

THIS LINE FEATURES A LOT OF D- OUTLINE. TRY OVER G7 AND D-7 (SEPARATELY AND TOGETHER). NOTICE USE OF CHROMATIC APPROACH NOTES AND PASSING SCALE TONES.



THIS LINE FEATURES A LOT OF G7 OUTLINE. TRY THIS OVER D-7 AND G7 (SEPARATELY AND TOGETHER). NOTICE USE OF CHROMATIC APPROACHES, WHICH IN THIS CASE ADD A BLUESY FLAVOR.



HERE'S AN EXAMPLE OF A REDUCTION: A MINOR LICK THAT FITS OVER BOTH THE 11-7 AND THE V7. I'M THINKING OF ONLY THE MINOR CHORD IN CREATING THE LINE.

F-7 B^b7 E-7 A7 E^b-7 A^b7 D-7 G7

Musical notation on a single staff in treble clef. The line consists of a sequence of notes: F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4. This represents a minor lick that fits over both the 11-7 and the V7.

#2 TRITONE SUBSTITUTION

A VERY STANDARD HARMONIC SUBSTITUTION, A DOMINANT CHORD WHOSE ROOT IS A TRITONE AWAY FROM THE EXISTING DOMINANT 7 YOU ARE REPLACING. BOTH CHORDS ALSO CONTAIN THE SAME GUIDE TONES (3RD & 7TH) THAT SIGNIFY THE QUALITY OF THE DOMINANT 7TH CHORD.

FOR INSTANCE: YOU SEE THE WRITTEN PROGRESSION 11-7 V7 I.

D-7 G7 C Maj7

Musical notation on a single staff in treble clef. The staff is divided into three measures, each containing a slash (/) to indicate a placeholder for a chord. This represents the progression D-7, G7, C Maj7.

THE SUBSTITUTION USES D^b7 INSTEAD OF G7.

D-7 D^b7 C Maj7

COMPARE THE NOTES OF BOTH CHORDS: BOTH CHORDS CONTAIN THE SAME TRITONE F & B. C^b IS THE ENHARMONIC EQUIVALENT OF B ON THE D^b CHORD.

G7 D^b7

THIS TRITONE SUB CAN TYPICALLY BE USED IN ANY CADENCE OR TURNAROUND USING A V7 CHORD PROGRESSING TO A I MAJOR OR MINOR (THINK KEY OF THE MOMENT), BUT IT CAN BE USED IN STAND ALONE SITUATIONS AS WELL, SUCH AS A SINGLE DOMINANT CHORD WHOSE DURATION IS SEVERAL BARS. SUBSTITUTING A TRITONE DOMINANT CHORD OVER THE EXISTING CHORD WILL YIELD AN "ALTERED QUALITY" (ALTERED SCALE, MODE VII OF THE JAZZ MINOR SCALE).

A TURNAROUND LIKE THIS:

E-7 A7 D-7 G7

BECOMES:

E-7 E^b7 D-7 D^b7

LINEARIZING THIS TRITONE SUB MIGHT YIELD A LINE LIKE THIS:

TRY IT OVER BOTH THE "PLAIN" III-7 VI7 II-7 V7 AND THE VERSION WITH THE SUB VS.

COMBINE THE TRITONE SUB WITH AN INSERTED II-7 IN FRONT OF THE TRITONE SUB AND A BASIC D-7 G7 CMaj7 BECOMES:

D-7 A^b-7 D^b7 C Maj7

EXPERIMENT WITH CHANGING THE HARMONIC RHYTHM.

AS APPLIED TO A CHORD SOLO, THIS BECOMES POSSIBLE:

IN ALL OF THESE PREVIOUS EXAMPLES YOUR RHYTHM SECTION PLAYERS COULD BE PLAYING JUST THE BASIC CHORDS. THIS ALLOWS YOU TO INTERJECT MORE TENSION AND RELEASE IN YOUR LINES AND COMPING, NOT TO MENTION ARRANGING AND COMPOSITION! OR THE OTHER MEMBERS OF YOUR GROUP COULD BE SHARP-EARED ENOUGH TO PICK-UP THE CHANGES YOU'RE SUPERIMPOSING ON THEM. EITHER WAY, THIS COULD BE THE START OF SOME NEW CONNECTIVITY IN YOUR THINKING. "THE LINE IS THE CHORD AND THE CHORD IS THE LINE".

#4 CONNECTING DIATONIC CHAINS

SPEAKING OF CONNECTIVITY, YOUR DIATONIC CHAINS CAN BE CONNECTED BY TWO NON-DIATONIC MEANS:

A. CHROMATICALLY

C Maj7

B. BY DIMINISHED 7TH CHORDS

C Maj7 C#°7 D-7 D#°7 E-7 E#°7 F-7 F#°7 G-7 G#°7 A-7 A#°7 B-7 B#°7 C Maj7

WE COULD LINEARIZE THE PREVIOUS EXAMPLE LIKE SO:

#5 INCOMPLETE DOMINANT 9TH CHORDS

THE DIMINISHED 7TH CHORDS FROM THE PREVIOUS EXAMPLE CAN BE VIEWED AS INCOMPLETE DOMINANT 9TH CHORDS. TAKE ANY EXISTING DIMINISHED 7TH CHORD, ADD A NEW ROOT A MAJOR THIRD LOWER THAN THE EXISTING DIMINISHED CHORD ROOT, AND YOU WILL HAVE A 7^b9 CHORD.

C#°7 A7(b9)

WE WILL "RETHINK" A PORTION OF THE PREVIOUS DIMINISHED CHORD PROGRESSION LINKED AS FOLLOWS:

C Maj7 A7(b9) D-7 B7(b9) E-7

NOTICE THAT THE PROGRESSION CREATES A COUPLE OF V7-I CADENCES. THE INCOMPLETE DOMINANT 9TH CONVERSION WORKS PRIMARILY WITH ASCENDING DIMINISHED CHORD PROGRESSIONS.

C Maj7 A7alt D-7 B7alt E-7 A7alt D-7 G7alt C Maj7

THE PREVIOUS EXAMPLE AND THE ♭9 REPLACING A DIMINISHED 7TH IS A STANDARD REHARMONIZATION (SUB) ON "RHYTHM CHANGES" AND OTHER STANDARD TUNES THAT USE DIMINISHED 7TH CHORDS. PLAYING ALL THESE CHANGES OVER A PLAIN CMaj7 CHORD WOULD PROBABLY BE TOO MUCH, BUT IF YOU DOUBLE-TIMED THE LINE....

ANYWAY, I HOPE THIS SHORT LESSON GIVES YOU SOME IDEAS ABOUT CHORD CONNECTIVITY—BOTH HARMONICALLY AND LINEARLY. BY NO MEANS IS THIS THE ALL ENCOMPASSING LIST, IT'S JUST A PLACE TO GET STARTED. IN GENERAL, I FIND MOST OF MY STUDENTS DO BETTER WITH A "SHORT LIST" OF DO-ABLE ITEMS. SOMETIMES HAVING TOO MANY OPTIONS INHIBITS THE ACQUISITION OF USABLE TOOLS. WE LOSE THE THREAD OF WHAT WE'RE TRYING TO DO IN THE FIRST PLACE BY TRYING TO DO TOO MUCH! KEEP IT SIMPLE!

THE MOST IMPORTANT THING YOU CAN DO FOR YOURSELF (REGARDING THESE IDEAS) IS TO FIND EXAMPLES OF THEIR USAGE IN THE PLAYING OF THE GREAT IMPROVISING MASTERS OF ALL INSTRUMENTS! AS A GUITARIST MYSELF, I FOUND A LOT OF THESE SOUNDS IN THE MUSIC OF MY MUSICAL HEROES JOE PASS, PAT MARTINO, AND ESPECIALLY WES MONTGOMERY. BUT THESE ARE "BOP-ORIENTED" IDEAS (THOUGH THEY CAN BE USED IN MORE MODERN JAZZ) AND YOU'LL FIND EXAMPLES IN PARKER, ADDERLY, COLTRANE, ETC. USE YOUR EAR AND SEE WHAT "FITS" IN THE SITUATIONS YOU PLAY IN. HAVE FUN AND BE MUSICAL!