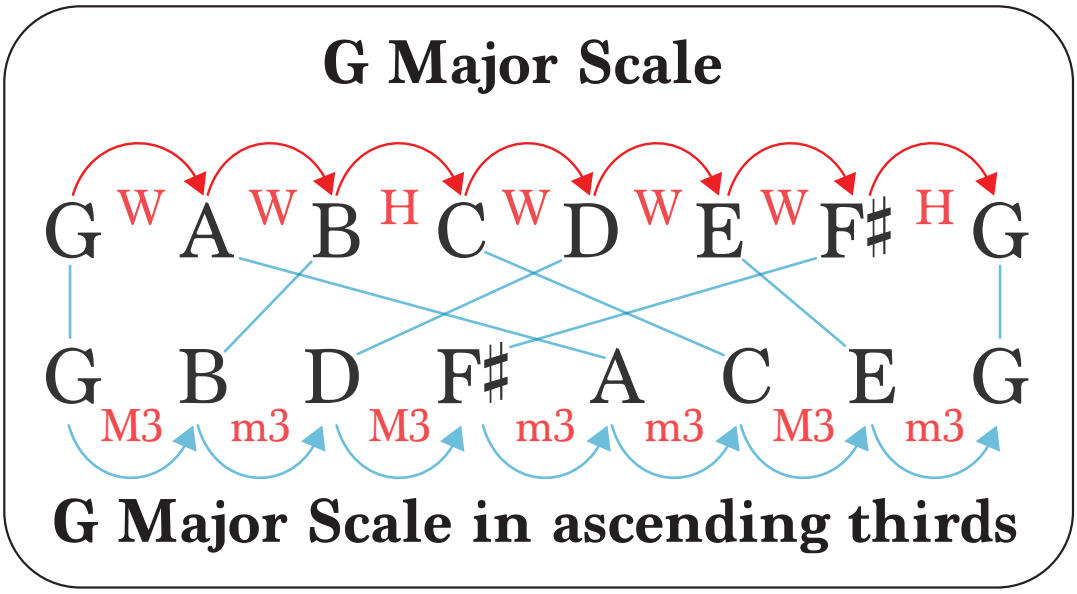
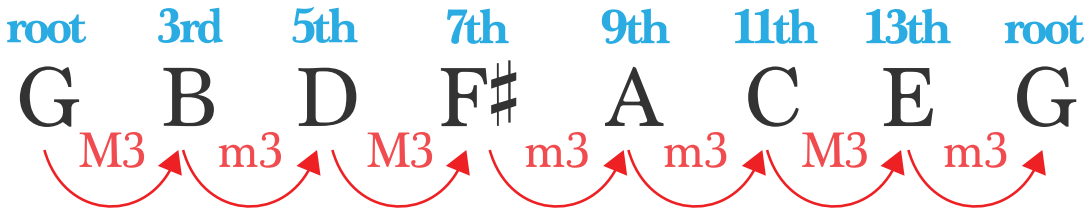
Music Theory Monday 34

11th chords

In the next few Music Theory Monday lessons, we'll tackle 11th chords and 13th chords. As we dig into the concept, its crucial to remember this concept: As we move up the scale in thirds, we eventually run out of notes and arrive back to the root. This graph shows one way to look at it:



As you can see in the lower half of the above pattern, if we start with the root note of the scale and continue in this every-other-note fashion, we eventually arrive back at the root note of the scale. This is why there is no 15th or 17th chord. Chords can only go up to the 13th. If we label the G Major Scale in ascending thirds like this, you'll see what I mean:



When you play every other note of the scale, labeling each note in this 1 3 5 7 etc, by the time we get to 13, the root is a third away. This means we've gone full circle. We've moved up in thirds until we ran out of thirds. This is why there is no 15th chord, because the 15th would just be the root.

The above set of notes is technically a chord, but probably not one you'd want to use.

In this lesson we'll consider three things:

1. What is the rigid, basic concept behind 11th and 13th chords?
2. How does this rigid concept soften in the organic language of music?
3. How do the limitations of guitar allow for these chords?

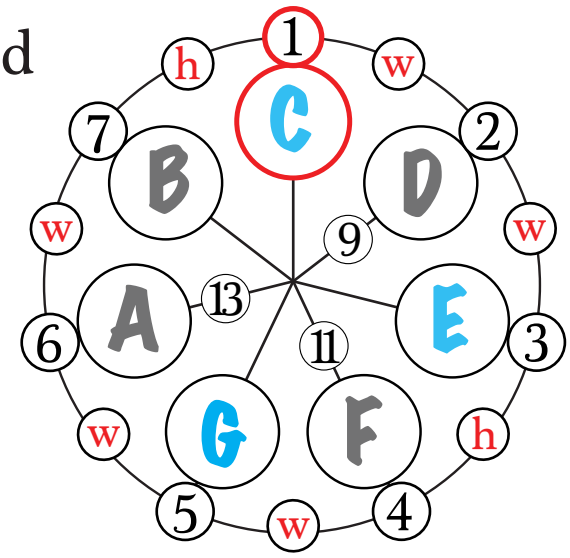
Music Theory Monday 34

11th chords

The rigid concept of 11th chords

Before we dive in, lets review the relevant chords we've already discussed:

R 3 5	=	C Major Triad
R 2 5	=	Csus2
R 4 5	=	Csus4
R 3 5 + 2	=	Cadd9
R 3 5 + 4	=	Cadd11
R 3 5 6	=	CMaj6
R 3 5 7	=	CMaj7



These are (basically) all the types of chords we find between a basic triad and a Major 7th chord. We've already discussed 11th chords in the form of an add11 chord. This is simply a matter of building a triad and "adding 11." We've also compared add9 chords (R 3 5 + 9) to chords like maj9. 11th chords work the same way.

Maj7 = 1 3 5 7
Maj9 = Maj7 + 9
Maj11 = Maj9 + 11

Dom7 = 1 3 5 ♭7 of maj scale
Dom9 = Dom7 + 9
Dom11 = Dom9 + 11

m7 = 1 ♭3 5 ♭7 of maj scale
m9 = m7 + 9
m11 = m9 + 11

CMaj11
C E G B D F

C11
C E G B♭ D F

Cm11
C E♭ G B♭ D F

As you can see, 11th chords that are not of the "add" variety, are essentially a 9th chord with an extra 3rd on top.

Conceptually, an 11th chord consists of:

R 3 5 7 9 11

In the wild, 11th chords have a looser definition. We'll cover that on the following page.

11th chords

The loose concept of 11th chords

Things aren't always so neat and tidy when you translate a concept into real world situations. Now that we've discussed the rigid concept, lets talk about how these concepts flex in real world music language.

The first issue is that an 11th chord has six distinct tones. A major scale has seven disctinct notes. An 11th chord has one less note than an entire scale!

C Major Scale: C D E F G A B C
C Major 11 chord: C E G B D F

Because of this, these chords essentially have to convince the listener that the root is in-fact the root. In other words, they sound very complex and dissonant, sometimes confusingly so. For this reason, there are certain voicings that sound better than others.

The second issue has to do with playability. A chord with six different notes is difficult (if not impossible) to play on guitar. This further limits the number of decent voicings on guitar.

The solution to these problems is simple: *remove tones from the chord!* The looser concept of this type of 11th chord (Maj11, m11, dom11) is that the 7th must be included in the chord. Often the 5th is removed, sometimes the 9th, and sometimes the 3rd!

On the following page, I'll show some common voicings of 11th chords, but I wanted to talk about each category first:

Maj11

Maj7 and Maj9 chords are beautiful as I and IV chords, but the Maj11 chord is very dissonant, likely because the 3rd of the chord is a half step away from the 11th.

However, as a IV chord, it fits in the key as a ♯11 chord and avoids that issue.

m11

m7 works for ii, iii, and vi in a major key, and m9 works as ii and vi, but iii has to have a ♭9, which is fairly dissonant.

ii and iv can both be m11 chords.

dom11

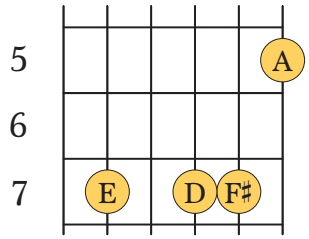
V chords are traditionally more dissonant, so a dominant 11 chord is great.

Music Theory Monday 34

11th chords

A few examples:

E11 Chord



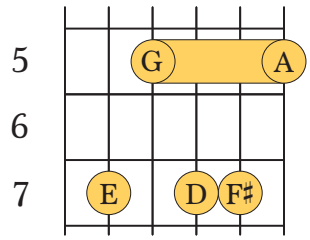
Notes used:

E	root
D	7th
F♯	9th
A	11th

This is a common 11th chord. The x11 naming convention indicates that it's based on a dominant chord.

However, since it's missing the 3rd, it could easily be used as an Em11 as well. Weird!

Em11 Chord

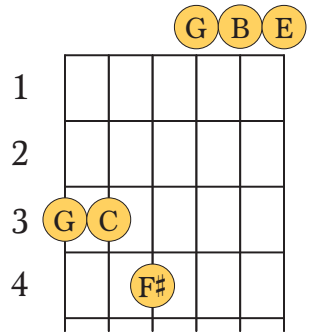


Notes used:

E	root
G	3rd
D	7th
F♯	9th
A	11th

Here is a m11 chord using all but the 5th of the chord. This one is pretty tricky to play, but it sounds nice.

CMaj♯11 Chord

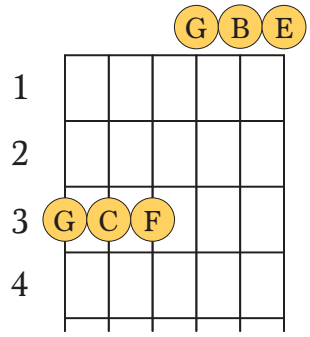


Notes used:

C	root
E	3rd
G	5th
B	7th
F	♯11th

This Cmaj♯11 is an example of an 11 chord as a IV chord. Notice how the 9th is missing

CMaj11 Chord



Notes used:

C	root
E	3rd
G	5th
B	7th
F	11th

This chord is just like the Cmaj♯11, but would be used as a I chord. Do you like it?