

More Scales than a Fish

That's how music must seem. Every time we blink, someone has a new scale to suggest. The familiar, Ionian mode (do re me fa so la ti do) and the Aeolian mode (la ti do re me fa so la) dominate popular music. But folk music makes good use of other modes including Dorian and Mixolydian. One would think that should be enough. But, really, how much of a good thing is enough??

Here are some additional scales to put into your inventory.

The Major Pentatonic Scale

Penta = five. Leave out the 4th and 7th tones of the Ionia scale and you have the pentatonic major scale: do re me so la

In the key of "D" the pentatonic scale is D E F# A B (D)

In the key of "G" the pentatonic scale is G A B D E (G)

When you play this, it may sound Asian in character, and you'll be inclined to think, well, I don't need that very much. But you do.

If you analyze a lot of popular and folk music, you'll find that most of these melodies, in the Western tradition, limit themselves to the pentatonic scale. Go into jazz and Broadway melodies and you'll find a somewhat different result.

The pentatonic scale is always in our ears. One of the reasons the pentatonic scale is so appealing is that the scale contains NO HALF STEPS. None of that jarring chromatic stuff in this scale. All very soft, gentle and new-agey. Nothing hard to sing. Easily remembered melodies.

Major Pentatonic Scale to the Rescue

Another good reason to master the major pentatonic scale in D and G is that, if you ever get lost in a tune (which never happens to me, of course), the pentatonic scale can save your performance. If you are in, say "D", and get lost, use the tones of the pentatonic scale in the rhythm of the melody and you'll be improvising. Folks will think you have created a variation on the melody. They'll be right too. So, master the major pentatonic scale: D E F# A B (D) and G A B D E (G)

The Minor Pentatonic Scale

The minor pentatonic scale is: 1, 3b 4 5 7b

On "D" that is: D F(natural) G A C(natural). This IS NOT the key of "D"! It is derived from the key of F. One flat. B flat. The relative minor (a 6th) from F is D. So, if you wanted a harmonious minor pentatonic scale in the key of D, use B minor (a 6th from D):

B C# D F# G

The minor pentatonic scale has two minor third intervals in it. 1 to 3b and 5 to 7b or D to F(natural) and A to C(natural) These occur at the beginning and the end of the scale. (Assuming you don't go to the octave)

The major pentatonic scale has two minor thirds too. But both of these occur at the end of the scale and assume that you do play the octave interval: 2 to 4 and 6 to 8. In "D" those intervals in the major pentatonic scale are E to G and B to D.

Which is Which?

How to remember this?? Within any key six pentatonic scales can be constructed. Three are major and three are minor. The major pentatonic scales start on the roots of the major scales diatonic major chords. The minor pentatonic scales start on the roots of the major scales diatonic minor chords.

Major Pentatonic Scales in D. The major chords are D, G and A or I, IV and V

D E F# A B
G A B D E
A B C# E F#

Minor Pentatonic Scales in D. The minor chords are Em, F#m and Bm or ii, iv and vi.

E F# G B C#
F# G A C# D
B C# D F# G

Try working these scales out for the key of G. Write out the Ionian mode scale and use the major chords of the key to create the major pentatonic scales and the minor chords of the key to create the minor pentatonic scales.

How many scales??

Hard to answer with absolute authority. It depends on how many tones are in the scale. Let's assume we use 7 tones do re me fa so la ti. How many permutations are there of seven things when repetitions are not allowed and order is important? Answer: 5,040. What an unpleasant thought!! 5040 different scales can be derived from our old friend the diatonic scale. The number gets a lot bigger if we include pentatonic scales or other truncations of the 7 tone scale.

Now, let's do this calculation with the chromatic scale. That's 12 tones: D-D# E-F F#-G G#-A Bb- B C-C# . (solfeggio works in the chromatic scale: do-de ra-re, etc. but too confusing!)

Answer: 479,001,600 possible chromatic scales. The serial music of the early 20th century was based upon that number. Most of us find that music painful to hear!

Mercifully we don't use all these possible scales. Although some music teachers seem to relish the pain some of the obscure ones can inflict upon students.

Other cultures have bigger numbers. Middle Eastern music, think of Iraq and the oud (mother of the guitar), uses quarter tones. And one system in India divides the octave into 22 tones. The possible number of scales is just out of sight for these systems.

What Scales Must I Know?

The list isn't huge.

Ionian mode: do re me fa so la ti do.

Learn this in the keys of D, G, A, C and F. You can pass on E and Bb. Start the C scale on the bass bridge on middle C. You'll get two full octaves. Start the F scale on the bass bridge. You'll get one full octave.

Major Pentatonic:

In "D" that's D E F# A B

Dorian, Mixolydian and Aeolina Mode Scales on D and G tones.

You don't need to know the full scales, just the ones that appear on the chords most frequently used in those modes. We'll talk about chord selecting for the modes at another time.

Bottom line.....start with the keys of D and G. When these essential scales are in your head and hands, go after A, C and F. You'll be one hot player when you master all these!

The blues scales should be learned too. But that's another topic for another time.