Circle of Fifths Robert Higginbotham

The circle of fifths has been around for a very long time, reportedly first published by the German Baroque composer, Johann David Heinichen in 1728.

Divided like a clock, in twelve intervals, it is a useful tool for many things. Using the circle is an easy way to know what the various key signatures are (G has one sharp, F has one flat, etc.). Starting with C major on the top, the 'sharp keys' cycle going in fifths to the right. The 'flat keys' cycle in fourths to the left. In other words, when you traverse the Circle of Fifths in a clockwise direction the intervals (musical distances between each note) are fifths. When you traverse the circle in a counterclockwise direction the intervals are fourths.

The following version of the "Circle" came from www.carolinaclassical.com/scales/circle.html



Start at the Top

C major is located at the top of the circle. It has no sharps or flats. Occupying the same slice of the circle is the C major's relative minor - key of A minor. Likewise it has no sharps or flats.

The 'sharp keys'

Moving to the right we go a fifth from C to the key of G. G has 1 sharp. The relative minor is E^m F#

Moving to the right we go a fifth from G to the key of D. D has 2 sharps. The relative minor is B^m F#, C#

Moving to the right we go a fifth from D to the key of A. A has 3 sharps. The relative minor is $F^{\#m}$ F#, C#, G#

See the pattern yet ??

Moving to the right we go a fifth from A to the key of E. E has 4 sharps. The relative minor is $C^{\#m}$ F#, C#, G#, D#

Two things happen when cycling through the "sharp keys" Each key inherits the sharps from the previous key Each key adds one sharp – it's major seventh note.

Moving to the right we go a fifth from E to the key of B. B has 5 sharps. The relative minor is $G^{\#^m}$ F#, C#, G#, D#, A#

Moving to the right we go a fifth from B to the key of F#. F# has 6 sharps. The relative minor is D#^m F#, C#, G#, D#, E#

E# whoa... hold the horses. Isn't E# an F ?? Well, yes. Same note – the two notes are enharmonic but technically the note is E# in the key of F#. Why ?

Spelling scales – when spelling eight note major (and relative minor) scales the following rules apply:

Never skip a letter (A-G are used in every scale) Never repeat a letter (except the last note which is the same as the first)

Moving to the right we go our last fifth to the key of C#. C# has 7 sharps. The relative minor is $A^{\#m}$

F#, C#, G#, D#, E#, B#

B # is enharmonic with C, but now you know why the scale of C# contains a B#.

The 'flat' keys

Moving to the left on the wheel, the first key we get to is F. F has one flat. The relative minor is D^m Bb

Moving to the left our next key is Bb Bb has two flats. The relative minor is G^m Bb & Eb

Moving to the left our next key is EbEb has three flats. The relative minor is C^m Bb, Eb, and Ab

Do you see the pattern ?

Moving to the left our next key is Ab Ab has four flats. The relative minor is F^m Bb, Eb, Ab and Db

Two things happen when cycling through the flat keys Each key inherits the flat of the next key on the wheel The flat that is added is the fourth note of that scale

Moving to the left our next key is Db Db has five flats. The relative minor is Bb^m Bb, Eb, Ab, Db and Gb

Moving to the left our next key is Gb Gb has six flats. The relative minor is Eb^m Bb, Eb, Ab, Db, Gb and Cb

Whoa... Hold the horses Cb ??? Isn't that a B ? Well yes it is, but the scale already contains a Bb so it can't be a B, has to be a Cb.

So, what's the use ?

As you can see, the Circle of Fifths is an excellent tool to determine key signatures.

Other good uses for the wheel –

1. You can quickly identify Blues Progressions (I-IV-V) chords in any key by going one to the left of a key for the IV chord and then one to the right for the V chord. The same holds true for the relative minor keys (i-iv-v). i.e. a G I-IV-V blues would contain G, C & D. An Am blues would contain Am, Dm and Em.

- 2. Harmonically speaking, the closer key signatures are on the wheel, the closer the keys are to each other. The opposite is true, the farther away the key signatures are from each other the more dissonant they are. Try this Play a chord progression of G-C-D. Now play a chord progression of G C# D. Hear the dissonance ? Downright ugly. So, the wheel can be a handy tool when writing music. When you want dissonance it can be found. Right there across the wheel!
- 3. You can also find a staple of many jazz chord structures the ii V I change in neighboring slices on the wheel. Am is relative of C and the ii of G, skip a slice to the right to find the D chord (the V of G) and then back one to the left to G (the I of G).
- 4. Want to play the Hendrix Classic "Hey Joe" ?. Start on C and go around to the right until you get to E. The progression is C G D A E. Want to play it in Bb ? Start on Bb and go around to the right until you get to A.

Parting tip

To be a good musician it is imperative to be able think of chordal and melodic structures in terms of their relationships (i.e. D is the V of G). This will allow many things – the ability to play charts in any key, the ability to communicate chord changes quickly to other musicians by holding up fingers, and other key skills. In short - the ability to think and communicate musically.

With this said, try to recreate the wheel without looking at it. Construct it going clockwise in fifths, construct it going counter-clockwise in fourths.

Enjoy !