

Introduction to Harmony Theory

A Tour of the Toolbox

A Workshop by

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Harmony theory is fascinating and fun, but also chocked full of details. It can be difficult to comprehend quickly and put to use. The purpose of this workshop is to demystify elements of harmony theory and show ways the theory can be put to immediate use on the hammer dulcimer.

The Essential Tool Kit

These are the musical tools you need to understand in order to apply harmony to your playing.

- ✓ Tones of all triads formed on the diatonic scale
- ✓ Where to find those triadic tones on your dulcimer
- ✓ The Circle of 5^{ths}
- ✓ Root Movement as Shown on the Circle of 5^{ths}
- ✓ Chord Substitution Techniques
- ✓ Embellishment and playing techniques

This workshop will explore using the essential tool kit to create harmonies, bass lines, and chord progressions.

Selecting Harmony Tones

Most often harmony tones appear below the melody tone. The important relations to know are:

- Pleasant, sweet, close harmonies: use 3^{rds}
- Pleasant, sweet harmonies with an open feeling: use 6^{ths}
- Tense, worried harmonies: use the minor 3rd
- Powerful and ambiguous harmonies: use 5^{ths} or 4^{ths}
- Mild dissonance: use 2^{nds}
- Harsh dissonance: use 7^{ths}
- Airy, open feeling: use 13^{ths}, 11^{ths} and 9^{ths}



Be careful about using sequential harmonies. A sequence of 3^{rds} can sound very pleasant over the course of three or four beats. But a sequence of 5^{ths} or 4^{ths} will sound terrible almost immediately.

Instead of having the harmony parallel the melody, try letting the harmony diverge from the melody. The opening phrase of *South Wind*, **D C B A G A B C D A**, would be harmonized in parallel 3^{rds} as:

D-B C-A B-G A G B-G C-A D-B A-F#.

Melody tones are shown in bold face. Harmony tones are in small type. Notice that in the middle of the phrase there are two tones that have no harmony; those are A and G. This is done to break up the monotony of the parallel 3^{rds}.

A divergent harmony would be played an octave below the melody and might be written:

D-B C-c **B-D** **A G** **B-D** C-c **D-B** **A-F#**.

Occasional use of divergent harmonies can be very powerful. This technique can also produce wonderful passing tones that create very desirable tension.

The Grammar of Music

Thinking about musical phrases as English language sentences will help you cut through a great deal of rote memorizing of the details of harmony theory. Just like an English sentence, good musical phrases have a subject and verb, and often an object. Of course it is possible to write a sentence or compose a phrase that has many other parts – prepositional clauses, parallel structures and so forth. You can carry the analogy too far.

The brain is hardwired to anticipate specific structures in music. The most fundamental of these structures is the movement from the I chord to the V chord and back to the I chord. That harmonic progression is called a cadence. If both chords have their root tones as the lowest member of the chord, the V to I progression is called a “*perfect cadence*”. The I chord establishes the tonality of the music, what we call “key”. The V chord relates to that tonality in a manner that causes us to yearn to return to the I chord.

Think of the I chord as the subject and the V chord as the verb. These chords bear special names. The I chord is called the TONIC chord. The V chord is called the DOMINANT chord.

Sentences have objects and so do harmonic progressions. In language, the subject acts upon the object through the verb. In music, the object is the IV chord. It is called the SUBDOMINANT chord. You are familiar with the relationship between the IV chord and the I chord. It’s the sound of AMEN at the end of a hymn. A chord progression from I to IV to V to I with the root tones in the bass of each chord is called an “*authentic cadence*”. The harmonic fabric of an extraordinary number of folk and popular tunes is little more than one authentic cadence after another. You should master the authentic cadence in the keys of D and G through the range of the dulcimer.

The seven chords on the diatonic scale relate to each other through the relationships created by the I, IV, and V chords. That relationship is visible on the Circle of 5^{ths} diagram. Visit the website to download a pdf of the Circle of 5^{ths}. The Circle allows us to extract the essential information we need to design and understand chord progressions. Review these two chord boxes for the keys of G and C. Follow these examples to create the chord box for the Key of D. Do the same for the key of A and you will have all the chords you will need for most dulcimer tunes.

The Chord Box for the key of D

D	G	A
Bm	Em	F#m
<i>or using chord numbers</i>		
I	IV	V
vi	ii	iii

The Chord Box for the key of G

G	C	D
Em	Am	Bm
<i>or using chord numbers</i>		
I	IV	V
vi	ii	iii

Bass Lines – Separate Hands

Players often enjoy a bass line that is lower than the melody by an octave or more. While a separate bass line is harmonically supportive, it will appear to be different both rhythmically and in its melodic contour from the melody. How can this separate hands arrangement be created? We'll use *Twinkle Twinkle Little Star* as the example piece. Here are the steps.

1. Find the melody on the treble bridge. This will eventually be played only with the left hand.
2. Put the three chord tones (1-3-5) under this melody. The root tone will not appear as the lowest tone every time you place a chord. The chords may be inverted to second position (3-5-1) or third position (5-1-3).
3. Play through the melody to ensure you like the chord selection.
4. Now play the piece again, but this time drop out the central tone of the triad. When you do this, the right hand will always play on the bass bridge and the left hand will always play the melody. Play the bass bridge tones only on the downbeat of the measure. Once you are confident about the hammering patterns and like the sound, think about putting in passing tones in the bass line.

This technique will work to launch the creation of separate hands pieces for dulcimer.

A Primer on Harmonic Arranging

Arranging is a big subject that includes elements of harmony, rhythm, tempo and instrumental voices. This workshop will look solely at a method for developing the harmonic part of an arrangement.

Good chord choices flow from understanding the Circle of 5^{ths} and the harmonic relationships it diagrams. Knowing about root movement is essential. But there is a method that will get to an arrangement without memorizing all those details.

1. Write out either in standard notation, or ABC format or simply the letters of a melody.
2. Use a chord substitution chart to select chords for each melody tone. See the next page for a chord substitution chart in the key of G.

Note that chords do not have to change on every beat or on every melody tone. In fact, in traditional music it is highly desirable to have chords linger. In jazz and in contemporary Celtic arrangements, chords very often change on every beat. But, don't begin an arrangement with that objective. Start simple.

3. Each tone on the diatonic scale has three potential chords that will support it in a consonant fashion. Scroll through the chord substitution chart to pick the chord that pleases your ear the most. Your decisions will produce a unique sound to the piece. As you make your selections, you will have to consider where embellishments might go, how chords should be voiced, whether they should be full chords or only harmonies, and how easy or difficult a particular chord sequence is to play. There are lots of decisions to make, but the procedure is straight forward.

One arranging technique is to arrange a fast tune using lots of minor chords and even chord extensions. Play it at a very slow tempo. Go through one pass with this lush arrangement. Then, pull the tempo up to dance speed and return the arrangement to the expected I-IV-V chords. Try this with a fiddle tune like *Bonaparte Crossing the Rhine*.

Chord Choices in the Key Of G	
If the Melody Tone Is	Choose One of These Chords
G	G (G-B-D)
	C (C-E-G)
	Em (E-G-B)
A	A (A-C#-E)
	F#m (F#-A-C#)
	D (D-F#-A)
B	Bm (B-D-F#)
	G (G-B-D)
	Em (E-G-B)
C	C (C-E-G)
	Am (A-C-E)
	F#dim (F#-A-C)
D	D (D-F#-A)
	Bm (B-D-F#)
	G (G-B-D)
E	Em (E-G-B)
	C (C-E-G)
	Am (A-C-E)
F#	F#dim (F#-A-C)
	D (D-F#-A)
	Bm (B-D-F#)