

# GOING MODAL WITH THE APPALACHIAN DULCIMER

**Q**uestion: what musical instruments can claim the USA as their country of origin? The usual answer (or guess) is that the 5-string banjo is the only instrument that has this pedigree. Well, that's incorrect because there is one other instrument on that short list—the Appalachian dulcimer (Figure 1). The Appalachian dulcimer is a three-stringed instrument



Figure 1 – The Appalachian dulcimer

with one melody string (usually the bottom one) and two drone strings.

It is related to the psaltery and

the zither and may stem from the German “scheitholt,” a boxy instrument with both fretted and unfretted strings. It first appeared in Pennsylvania in the 1830s. Like the banjo that owes its heritage to the African gourd instruments brought here with the advent of Southern slavery, the Appalachian dulcimer became a particularly American artifact. Because the dulcimer found a home in the



BY  
ROGER  
GOODMAN

Ionian mode because it is the same as our present-day Major scale (see Table 2, Mode I). Just like the Major scale, the half-steps in the Ionian scale fall between frets 3 & 4 and 7 & 1. This arrangement is facilitated on modern dulcimers because they have an extra 6+ fret. To play a D-Major scale (Ionian mode), start on the open D string and play the 6+ fret instead of the 6<sup>th</sup>.

To play a Major scale (Ionian mode) on an older dulcimer without the 6+ fret requires the player to start on the 3<sup>rd</sup> fret of the D string. There's more good news and bad news about this. The good news is that besides getting to play in Ionian mode, you can now reach melody notes below the tonic since you are no longer starting on an open string. But the bad news is that since you are now in a different key (G in this case), the other two open drone strings (which should be the tonic and the fifth) are not necessarily the correct notes.

There are a couple of things to do about this situation:

Retune the D melody string to A. For a D Ionian mode scale, start on the 3<sup>rd</sup> fret while keeping the properly tuned drone strings. This DAA tuning is often called Ionian tuning.

Have the two drone strings also sound from the third fret. Believe it or not, this can be accomplished without tying up all of your fingers. Behold the wonders of the dulcimer capo (Figure 3)! Starting from the DAD Mixolydian tuning and capoing on the 3<sup>rd</sup> fret puts you right into G Ionian with the correct drones of G and D.

As a review, there are several ways to get different modes on the Appalachian dulcimer (this information is also summarized in Table 3).

You can choose a different mode by selecting a different starting fret on the melody string and/or by choosing to use the 6 or 6+ fret.

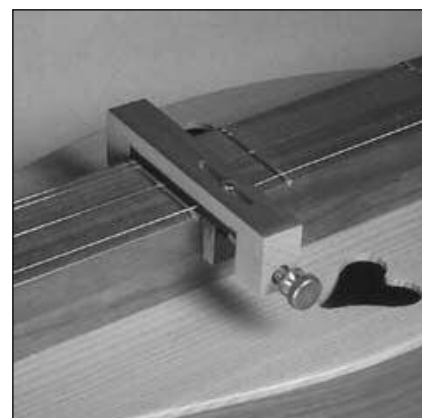


Figure 3 – A dulcimer capo in use.

	0	1	2	3	4	5	6	6+	7	8	9	10	11
D		E	F#	G	A	B	C	C#	D	E	F#	G	A
A		B	C#	D	E	F#	G	G#	A	B	C#	D	E
D		E	F#	G	A	B	C	C#	D	E	F#	G	A

Figure 2 – The dulcimer fret board layout in DAd tuning.

Southern mountains it came to be known as the mountain dulcimer. It is also known as a lap dulcimer since it is played while resting on the player's lap.

The dulcimer is a fretted diatonic, not chromatic, instrument. This means that the scale consists of seven notes to the octave (five whole-steps and two half-steps) while a chromatic scale has twelve notes to the octave (each note is a half-step). The most familiar example of a chromatic instrument, where each fret represents a half-step, is the guitar. If you compare a dulcimer fingerboard to that of the guitar, it appears as if some frets are missing from the dulcimer (Figure 2). This layout is evidence of a diatonic instrument and is both good news and bad news. The good news is that, unlike the guitar, you can play a scale without having to remember which frets to skip since they are already missing. The bad news is that if you change keys (start on a different note) you also change modes.

So what's a mode and why does it matter? The answers to that question were discussed at length in the last issue (see the Archives at [www.FolkWorks.org](http://www.FolkWorks.org)).

It should be mentioned that the tables presented in that column fell out of alignment when they went to press so I cleverly incorporated the corrected versions of Table 1 and Table 2 here since they are once again germane to this topic. Using the most common tuning for the dulcimer (DAd) and looking at the fret board (Figure 2) you can see that a scale starting on the open D string, and omitting the 6+ fret, will be “D - E - F# G - A - B C - D” or more generically “1 - 2 - 3 4 - 5 - 6 7 - 1.” Table 2 shows that when the half-steps fall between 3 & 4 and 6 & 7 this arrangement is the Mixolydian mode and this tuning is often referred to as the Mixolydian tuning for the dulcimer.

Mode using the 6 fret	Mode using the 6+ fret	Tuning for D	Start Fret	Key when capoing from DAd tuning
Mixolydian	Ionian	DAd	0	D
Aeolian	Dorian	DAC	1	E
Locrian	Phrygian	DABb	2	F#
Ionian	Lydian	DAA	3	G
Dorian	Mixolydian	DAG	4	A
Phrygian	Aeolian	DAF	5	B
Lydian	Locrian	DAE	6	C

Table 3 - Summary of information for the dulcimer.

Mode#	Greek Name	Key	C	D	E	F	G	A	B	C	D	E	F	G	A	B	C	Remarks
I	Ionian	C	1	2	3	4	5	6	7	1								Present day Major scale
II	Dorian	D		1	2	3	4	5	6	7	1							
III	Phrygian	E			1	2	3	4	5	6	7	1						
IV	Lydian	F				1	2	3	4	5	6	7	1					
V	Mixolydian	G					1	2	3	4	5	6	7	1				
VI	Aeolian	A						1	2	3	4	5	6	7	1			Present day natural minor scale
VII	Locrian	B							1	2	3	4	5	6	7	1		

Table 1 - Modes are built on successive white keys of the piano (corrected from previous issue).

Mode#	Greek Name	Key	C	D	E	F	G	A	B	C	Maj/min	Remarks - Intervals & Chords
I	Ionian	C	1	2	3	4	5	6	7	1	Major	The only mode where the V7 chord occurs naturally.
II	Dorian	D	1	2	3	4	5	6	7	1	minor	A raised sixth, makes a IV maj chord and a ii min.
III	Phrygian	E	1	2	3	4	5	6	7	1	minor	A b2nd makes a bII maj and a v dim chords.
IV	Lydian	F	1	2	3	4	5	6	7	1	Major	A raised 4th makes a iv dim, vii min & a II maj chord.
V	Mixolydian	G	1	2	3	4	5	6	7	1	Major	A b7th makes a I7, a v min, and a VII maj chord.
VI	Aeolian	A	1	2	3	4	5	6	7	1	minor	A b6th & b7th makes a iv min and a v min chord.
VII	Locrian	B	1	2	3	4	5	6	7	1	minor	The b5th makes an almost unuseable i dim chord.

Table 2 - Modes from Table 1 aligned for comparison of note spacing (corrected from previous issue).

You can change the starting note (key) leaving the drones unchanged by retuning the melody string.

You can change the modes, the keys, and the drones by using a dulcimer capo.

The Appalachian dulcimer is not too difficult to learn and fun to play, especially when accompanying singing. But don't be fooled by this seemingly simple looking instrument—more advanced players can crank out amazingly complex tunes. I hope that you found this article to be interesting and perhaps even useful. So, until next time, remember to stay tuned.

Roger Goodman is a musician, mathematician, punster, reader of esoteric books and sometime writer, none of which pays the mortgage. For that, he is a computer network guy for a law firm. He has been part of the Los Angeles old-time & contra-dance music community for over thirty years. While not a dancer, he does play fiddle, guitar, harmonica, mandolin, banjo & spoons. Roger has a penchant for trivia and obscure and sometimes tries to explain how the clock works when asked only for the time. He lives with his wife, Monika White, in Santa Monica.