

Modal Tunings on the Mountain Dulcimer

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Note: Tunings are given in the order bass-middle-melody. **Dac**, for instance, means the bass string is tuned to **D**, the middle string is tuned to **a**, and the melody string is tuned to **c**. "Strings" in this context may actually refer to courses of 2 strings that are played together (e.g., the melody string is doubled on most dulcimers).

What Mode Is This?

Associating tunings with modes can require a bit of mental gymnastics when we move beyond the standard tunings like **Dad** (mixolydian in D), **Daa** (ionian in D) and **Dac** (aeolian in D). What mode or modes can one play in a **Gdc** tuning, for instance? If you would like to be able to readily answer such a question -- for any tuning -- read on!

First, Assume 3 Kinds of Dulcimer Tunings.

First, begin with the idea that there are three "generalized" tunings for modal dulcimer playing. They are:

5th Tuning

In this kind of tuning, the middle string is tuned to the 5th above the note of the bass string. The familiar **Dad** tuning is an example of a 5th tuning, because **a**, the middle string, is the 5th of **D**, the bass string.

4th Tuning

Here, the middle string is tuned to a 4th of the bass note. For example, **DGd** is a 4th tuning because **G**, the middle string, is the 4th above the bass string's **D**.

Octave/Unison Tuning

So called because the middle string is tuned to a unison or octave of the bass string's note. Obviously, this may not happen too often with a normal string setup, but the concept will still be useful in a moment.

These are not the common terms used to label mountain dulcimer tunings, however. Since we usually want to play the dulcimer with a particular modal feeling, we often speak of the dulcimer as being "tuned to" a specific mode (e.g., **Dad** is referred to as "mixolydian tuning"). As it happens though, the three generalized tunings are useful precisely for their value in helping you establish which specific modes are available to you in a given tuning. What is important to realize is that we can easily attain all of the various modes through the use of a few simple rules about the generalized tunings and an understanding of the diatonic fretboard.

Next, Decide Where the Mode Begins on the Fretboard.

First, consider the following rules for each of the generalized tunings that determine where a mode starts on the melody string:

- *In a 5th tuning, the mode you are "tuned in" starts on an octave of the open bass string. For example, in **Dad**, the D mixolydian mode starts open on the melody string where the octave of the bass string is found. In **Daa**, the **ionian mode in D** starts on fret 3 of the melody string where the **d** note occurs.*
- *In a 4th tuning, the mode you are "tuned in" starts on the same note as the open middle string (or an octave thereof). For example, in the common **DGd** tuning, the **ionian mode in G** starts on the 3rd fret of the melody string where the G note occurs.*
- *In an **octave/unison tuning**, the mode usually starts at a 4th of the bass string, but could also start on the same note or an octave thereof, depending on the effect a player is trying to achieve. For example, with a dulcimer tuned **Aad** (see Jerry Rockwell's article in Dulcimer Players News 22:4), the mode can start open on the melody string for a **D mixolydian** tuning (**d** being the 4th of the bass string note), or the mode can start on fret 4 for a dorian tuning in A.*

Finally, Determine What the Starting Fret Says About Mode.

Most pleasant sounding tunings will fit one of three generalized tuning categories listed above. If so, we know the note and, by extension, the fret at which our associated mode begins. *From this point, identifying the tuning with a mode depends only on this fret location at which the mode "starts."*

It has to do with fret spacing. Because the Appalachian dulcimer has a diatonic fretboard (ignoring the chromatic 6+ fret for now), every starting fret has a characteristic pattern of long and short spaces continuing down the fretboard towards the bridge. *These long and short fret spaces correspond to steps and half-steps among musical notes and such an arrangement of notes in conjunction with the drones established by the bass and middle strings comprises the sound of a particular mode.*

Example: Dulcimer Tuned **Dac**

A dulcimer tuned **Dac** is said to be tuned **aeolian in D** for the following reasons:

1. Because the **Dac** tuning is a 5th tuning, we know our mode will start on the note **d**.
2. This d note occurs on the first fret of the melody string.
3. The step pattern away from that fret is 1-h-1-1-h-1-1 (h refers to a "half-space" like the third fret), which matches the tone pattern of the aeolian mode.

Each fret location has a specific mode associated with it that the dulcimer is said to be "tuned in" when a tuning places the mode-start on that fret. The following diagram shows the mode associated with each fret and it's characteristic step pattern of whole (1) and half (h) steps.

open	-	mixolydian	1-1-h-1-1-h-1
1st	-	aeolian	1-h-1-1-h-1-1
2nd	-	lochrian	h-1-1-h-1-1-1
3rd	-	ionian	1-1-h-1-1-1-h
4th	-	dorian	1-h-1-1-1-h-1
5th	-	phrygian	h-1-1-1-h-1-1
6th	-	lydian	1-1-1-h-1-1-h

The whole business, quite obviously, starts back over again at fret 7. Using a variation on Roger Nicholson's mnemonic device from DPN 22:4, you can remember this mode arrangement from open to 6th fret with the following phrase: "Many Are Lost In Dr. Pepper's Laboratory."

Another Example: Dulcimer Tuned **Ead**

Tuning the bass note up on **Dad** will give you the unusual tuning **Ead**. What mode does this represent? Consider the analysis:

1. Because the **Ead** tuning is a 4th tuning, we know our mode will start on the note **a**, which is the unison with the middle string (as per our rule).
2. occurs at the 4th fret along the melody string.
3. Because the step pattern away from the 4th fret is 1-h-1-1-1-h-1, we are tuned **dorian in a**.

What If I Use A Capo?

When you place a capo on your dulcimer, you change the drone notes of the bass and middle strings *but you do **not** alter the generalized tuning of your instrument*. Since both notes change the same amount, the relationship between them remains the same. In other words, a 4th-tuned dulcimer is always a 4th tuned dulcimer regardless of capo placement. However, the capo-change in notes on the bass and middle string does change the starting note for your mode as per the starting fret rules above. Exactly as before, the fret at which the new mode starts tells you which mode you are "tuned in."

Example: Dulcimer Tuned **DGd** with Capo at Fret 1

A **DGd** dulcimer with a capo on the 1st fret allows you to play **dorian in A** starting on the 4th fret because:

1. with the capo on the 1st fret of **DGd**, the dulcimer is, for practical purposes, tuned **Eae**.
2. Since **Eae** is a 4th tuning, we know that the mode starts on **a**, the same note as the middle string.
3. This a note occurs on the 4th fret, the beginning of the dorian fret arrangement.

How Does the 6+ Fret Affect Mode?

You can also use the 6+ fret to enhance your possibilities for modal playing. Using the 6+ fret instead of the normal 6 fret leads to the following fret-mode associations.

open	- ionian	1-1-h-1-1-1-h
1st	- dorian	1-h-1-1-1-h-1
2nd	- phrygian	h-1-1-1-h-1-1
3rd	- lydian	1-1-1-h-1-1-h
4th	- mixolydian	1-1-h-1-1-h-1
5th	- aeolian	1-h-1-1-h-1-1
6+th	- lochrian	h-1-1-h-1-1-1

What this means is that there are two melody string modes associated with each tuning, provided you have a 6+ fret on your dulcimer. You can use the phrase "In Dr. Pepper's Laboratory, Many Are Lost" to help remember this pattern of modes.

Example: Dulcimer Tuned **Dac**, Using 6+ Fret

We saw above that a dulcimer tuned **Dac** was aolian mode in D. That assumed normal use of the 6th fret. If we rely upon the 6+ fret in lieu of the 6th fret, we find that our dulcimer now plays dorian in D:

1. Give the 5th tuning, we know that our mode must start with the note **d**.
2. The note **d** occurs on the first fret of the melody string.
3. If we are using 6+ instead of 6, the step pattern from fret 1 out is 1-h-1-1-1-h-1: dorian.

You Can Also Use The Bass or Middle String for Melody!

The discussion so far has identified modes based on the drone-determined mode start on the melody string. You are not relegated to playing modal melodies only on the melody string, however. The bass string and middle string are useful for variations as well. When using one of these other strings for melody, observe the tuning of the remaining string courses. If together they may be construed as a 4th, 5th, or unison/octave tuning, then the rules about generalized tunings and modal starting points may be applied. If the remaining drone strings form some other interval aside from the three generalized possibilities, you will have to play it by ear -- an octave or unison to one of the two strings is often a good choice as a mode start in these cases. In any case, once you have determined the starting "root" note of your mode, the fret layout guides presented in this article apply. For example, if your starting note occurs the 4th fret of the bass string (and you are using the 6 fret rather than the 6+) then you are establishing a **dorian** mode with your tuning.

Ah, So That's What Mode This Is!

In the introduction, I asked you what modal playing is possible with a **Gdc** tuning. If I've been making sense and you've been paying attention, you should be equipped to answer that question now, right? Let's try: A **Gdc** tuning allows for **dorian mode in G**, starting on the 4th fret. Additionally, using the 6+ fret, you can do **mixolydian G** tunes starting at **G** on fret 4. Using the middle string as your melody string allows for **lydian in C**, starting on fret 6.

Enjoy the playing.

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