

Uncontrite Modal Folker

...one man's exploration of Modes

by

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Introduction

The traditional Appalachian dulcimer is one of the few remaining Western diatonically fretted musical instruments which regularly uses the concept of modal music. Even so, within the dulcimer community, forces are afoot to remove the modal nature of the instrument and substitute the chromatic 12-tone system. The aim of this article is to celebrate and explore the origins and nature of the modes and modal music for which the dulcimer is eminently suited.

History

The concept of modes and modal music goes back to beyond ancient Greece. The names of the modes are Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian, and they derive from geographic or ethnic regions in ancient Greece. Aristotle, Plato and Pythagoras were among the early authors who wrote about modal music.

We can only guess what music from ancient Greek and Roman times really sounded like. They didn't leave any recordings, of course, nor did they write down their music. But they did write about music, so we know that they used modes based on tetrachords. A tetrachord is a mini-scale of four notes, in descending pitch order, that are contained within a perfect fourth (five half steps) instead of an octave (twelve half steps)

A thousand years ago or so the concept of modes made its way to Rome, where the Catholic Church picked up the idea and applied it to church music. The Church kept the old Greek names - Dorian, Phrygian, Lydian, Mixolydian, Aeolian, Locrian, and Ionian - but we know that the "pre-church" or medieval modes were not quite the same as the modern modes.

The tuning system used in medieval Europe was not our familiar equal temperament system. It was a just intonation system, based on a pure perfect fifth. In this system, half steps are not all equal to each other. Slight adjustments are made in tuning and intervals to make them more pleasant to the ear; and the medieval ear had different preferences than our modern ears. This is another reason that modes sounded very different from each other, although that difference may be missing today when music is played on equal temperament instruments.

For hundreds of years, except for Ionian and Aeolian, the other modes had limited use, except in ethnic folk music.

But don't get the idea that modes are just for old music. Modern players have re-discovered the beauty of the structure of modal music. The Beatles used Dorian mode in *Eleanor Rigby*. Performers like Carlos Santana and Paul Simon use modal music all the time, not to mention bands such as ABBA, Metallica, and The Grateful Dead.

Mixolydian mode is quite common in jazz and most other forms of popular music. Because of its dream-like sound, Lydian mode is often heard in soundtrack and video game music.

It's important to remember that medieval mode theory, just like modern music theory, was *not* trying to invent a logical system of music. It was trying to explain, describe, and systematize musical practices that were already flourishing because people liked the way they sounded.

General Mode-iness

A Mode is an octave scale in diatonic music. The notes of the scale can be numbered from 1 to 7 and are also named as in the song from The Sound of Music - Do, re, mi, fa, sol, la, ti, and Do again - to form an octave.

Modes are divided into two groups – major and minor.

Major Modes.....Notes

Ionian.....1....2....3....4....5....6....7....1

Lydian.....1....2....3....4#...5....6....7....1

Mixolydian..1....2....3....4....5....6...7b....1

- Ionian mode is the same as the Major Scale in tonal music - no sharped or flatted notes.
- Lydian mode is identical to Ionian, except the 4th note of the scale is sharped.
- Mixolydian mode is identical to Ionian, except the 7th note of the scale is flatted.
- Sharped -- whatever the true note is, it has been raised a few cents to the sharp side of things
- Flatted -- whatever the true note is, it has been lowered a few cents to the flat side of things

Minor Modes.....Notes

Aeolian.....1....2....3b...4....5....6b...7b...1

Dorian.....1....2....3b...4....5....6#....7b...1

Phrygian....1...2b...3b...4....5....6b....7b...1

Locrian.....1....2b...3b...4...5b...6b....7b...1

- Aeolian mode is the Natural Minor Scale in tonal music. Compared to Ionian, its 3rd, 6th, and 7th notes are flatted.
- Dorian is identical to Aeolian, except the 6th note is sharped.
- Phrygian is identical to Aeolian, except the 2nd note is flatted.
- Locrian is identical to Aeolian, except the 2nd and 5th notes are flattened. Because the 5th note is flattened, this mode sounds very unstable, and isn't generally used for melodies.

Modes are defined by the pattern of Whole steps and Half steps (or intervals) in the scale, not by the actual pitches (notes) used.

Going back to The Sound of Music for a moment. Each syllable of the song (do, re, mi, fa, sol, la, ti) represents an interval in the major (Ionian) scale. These intervals are not evenly spaced,

thus giving each one a specific relationship to each other. "Do" sounds very finished and solid, for instance. "Ti", by comparison, sounds very unfinished and unresolved. It is called a leading tone, which means it wants to lead the melody back to the final note "Do". It is the relationship between these intervals which give the modes their musical interest.

In the Ionian mode, the intervals are divided into a very familiar pattern of whole and half steps; or wide and narrow spaces on the dulcimer fretboard. Most of us would instantly recognize the Ionian mode when played on a piano. The other modes retain this familiar pattern, but their scales start on different notes. Here's a quick breakdown on each mode and their relationship to the original Ionian intervals:

Ionian Mode (W-W-H-W-W-W-H)

The Ionian mode defines the familiar major scale pattern we hear as do, re, mi, fa, so, la, ti, do. The half step between Ti and Do gives the scale some tension and release. The majority of popular songs are written in Ionian mode.

Lydian Mode (W-W-W-H-W-W-H)

Lydian mode is the complete opposite of Ionian, so it feels as solid as a major scale but the intervals are surprising and unexpected. This is a popular mode for jazz musicians who enjoy mixing major and minor progressions in inventive ways.

Mixolydian Mode (W-W-H-W-W-H-W)

Mixolydian (Mixed Lydian) is similar to Lydian with its major scale feel with minor intervals. Mixolydian is popular with solo instrumentalists creating a counterpoint to an Ionian song.

Aeolian Mode (W-H-W-W-H-W-W)

Aeolian mode is referred to by many people as the "minor key". Aeolian intervals create the same feel as many modern blues songs. Songs in Aeolian mode have a strong sense of sadness. The final note of an Aeolian scale feels resolved in a completely different sense than the Ionian. If Dorian mode sounds melancholy Aeolian mode reeks of despair.

Dorian Mode (W-H-W-W-W-H-W)

Dorian is most commonly heard in Celtic music and early American folk songs derived from Irish melodies. Dorian mode sounds a little melancholy because the final note (re) doesn't quite resolve itself. The song may be over, but the singer is still unsettled.

Phrygian Mode (H-W-W-W-H-W-W)

Modern composers and guitarists use Phrygian mode because it works well with Ionian. Guitarists use modal music to create interesting solo lines to be played against melodies in other modes. Composers find Phrygian mode to be as useful as Aeolian, but without the inherent sadness.

Locrian Mode (H-W-W-H-W-W-W)

Locrian mode is considered so "unstable" and unsatisfying that most composers consider it unworkable. There are few songs written in Locrian mode, which has led some music experts to label it a 'theoretical only' mode. It exists because all seven notes of the Ionian scale could form modes in a mathematical sense, but the relationship between intervals in the Locrian mode is simply not that interesting musically.

DulciMode-iness

In all discussion of dulcimers and modes, you must ignore the 6+ fret. It is not part of the true diatonic scale. It is called the 6+ or “six-and-a-half” fret precisely because it is an addition to the normal sequence of intervals between diatonic frets.

A true diatonic fretboard has the sequence of spaces between the first ten frets of:

wide, wide, narrow, wide, wide, narrow, wide, wide, wide, narrow

A dulcimer with a 6+ fret added to its fretboard has the following sequence eleven spaces for the same 10 frets:

wide, wide, narrow, wide, wide, narrow, 6+ narrow, narrow, wide, wide, narrow

The Wide and Narrow spaces correspond to the Whole and Half tones of the scales.

On the dulcimer, a Mode is a scale played on any single string. All modes are available on any one string at any time. It does not include the drone strings.

Modes are a sequence of whole and half intervals (wide and narrow spaces between frets) equivalent to the intervals of the white keys on the piano.

Each mode starts on a different fret:

Mixolydian starts at the Open and 7th fret
Sequence W W N W W N W

Aeolian starts at the 1st and 8th fret
Sequence W N W W N W W

Locrian starts at the 2nd and 9th fret
Sequence N W W N W W W

Ionian starts at the 3rd and 10th fret
Sequence W W N W W W N

Dorian starts at the 4th and 11th fret
Sequence W N W W W N W

Phrygian starts at the 5th and 12th fret
Sequence N W W W N W W

Lydian starts at the 6th and 13th fret
Sequence W W W N W W N

Mode vs Modal Tuning

One problem that arises when we talk about modes and the dulcimer is that many people confuse the term *Mode* with the term *Modal Tuning*. The reason why is that many people today play chords across all three strings, and no longer think of the middle and far strings as drones that accompany the melody being played on the closest string.

A Mode is a scale, as we saw above, played on a single string.

A Modal Tuning describes the relationships between open tuned notes of the Bass drone, Middle drone and Melody string(s) which sound “pleasant” together when using a particular Mode scale as the basis for a song. “Pleasant” to most Western ears means notes that are separated by 3rd or 5th, and occasionally 4ths. Modal tunings are note independent (it doesn’t matter what the notes are as long as the relationships between the chosen notes are “pleasant”).

Ionian is a Mode. DAA is one of seven possible Ionian Modal Tunings - AEE, BFF, CGG, DAA, EBB, FCC, GDD.

The Keynote (A-G) of a Modal Tuning usually depends on the note to which the open Bass string of the dulcimer is tuned.

Each mode has a "traditional Keynote" (low 'do') associated with it:

Aeolian A.....traditional tuning AEG
Locrian B.....typical tuning Bb F G
Ionian C.....traditional tuning CGG
Dorian D.....traditional tuning DAG
Phrygian E.....typical dulcimer tuning E Bb G
Lydian F.....typical dulcimer tuning F E Bb
Mixolydian G..traditional tuning GDg

In the last 30 years or so, there has been a shift away from playing Ionian mode in the key of C and Mixolydian mode in the key of G.

There are thousands of players who have been taught that the key of D is the only ‘good’ or ‘useful’ key in which to play. Which is not so, of course!

However, since so many people have become “D-sensitized” (all puns intended) to the traditional keynotes of the Modes, here are the Key of D Modal tunings:

Ionian.....DAA
Locrian.....DAB
Aeolian.....DAC
Mixolydian...DAd
Lydian.....DAe
Phrygian.....DAf
Dorian.....DAg

As you see, only Locrian and Dorian are left in their traditional keynotes.

What Mode Is This?

You're tuned in Ionian mode and are tabbing out a song...

If the first note of the song is on the third fret, but the last note is on 1 or 8 then play the music in Aeolian Mode.

If the first note of the song is on the third fret but the last note is a 4, play it in Dorian.

Moods of the Modes

This was an ancient Greek concept which can still be applied today. When you play the Mode scales with the appropriate Modal Tunings, you supposedly experience a spectrum of sound "emotions" ranging from bright and happy to dark and dissident. Generally, modes with no or few flats are happy and bright sounding. Modes with a lot of flats in them tend to have darker moods.

Lydian.....Ionian.....Mixolydian.....Dorian.....Aeolian.....Phrygian.....Locrian
Brightest -----Darkest

Lydian Very bright, upbeat. Good for pop, contemporary praise, kid's music, etc.

Ionian Happy, bright. For love songs, children's songs, contemporary and popular tunes.

Mixolydian Middle of the road bright - for light rock, pop, country, etc.

Dorian The perfect middle ground. Not too bright, not too dark. Good for country, rock, blues.

Aeolian A gritty, bluesy, warm-sounding rock mode. The standard for rock and blues.

Phrygian Dark, classical metal sound. A Randy Rhoads favorite.

Locrian Very dark, dissident, brooding - great for heavy metal, dark classical, etc.

S'more a la Modes

This bit of modal humor has been floating around the Internet probably since the time of Plato!

All You Ever Really Need to Know About Modes
-- Hopefully the Final Word on a Distressing Subject

(Sorry for the false advertising in the subject line. Footnotes available on request to adults)

only -- proof of age required.)

The five original modes were Androgynous, Bubonic, Carthusian, Derranian, and Eucalyptic. All except the Derranian were quickly abandoned when it was discovered that they required a nine-note scale (although you could get away with eight and a half in the Eucalyptic if you had to).

The reason for this anomaly was never made clear, but after an initial flurry of curiosity during the first few months of 43 B.C., no one really seemed too interested in pursuing the matter further. The Greek philosopher Ctesiphon (or "the big C," as his friends used to call him) reportedly wrote a lengthy treatise explaining the whole mess, but most of the scrolls comprising the only extant copy of this work were erased and re-used for a collection of really dirty Corinthian limericks. (i.e. "A daring young girl from Mycenae / Wore naught but a bright purple beanie," etc., etc. - the translation work continues).

The Derranian mode survives today, but it is used primarily by finger-pickers blessed (cursed?) with seven fingers on each hand, for which reason it is also referred to as the Polydactylic. Cats may also experience this condition, but surprisingly it does not seem to enhance their finger picking abilities.

Fascinating Mode Facts

- Efforts by Pythagorean mystics to unite the properties of the mathematical relationship between a circle's radius and its circumference with the arrangement of musical tones led to history's first known example of pi a la mode.

- Playing of tunes in the Euthanasian (a.k.a. the Kevorkian) Mode is not presently permitted within the city limits of Columbus, Ohio. But is encouraged in Michigan - go figure!!

- Bodhrans are usually played in the "duh" mode (also called the Jurassic mode) which consists of two notes (duh and DUH) and a rimshot. This is believed to be the most ancient mode, according to some experts, predating even the Amoebic, which apparently makes it pretty doggone old.

- Princess Di, Edgar Allan Poe, Mickey Mantle, and Leonid Brezhnev were all born to women whose first names rhymed with various edible fungi and whose initials comprise the first four notes of the Cetacean mode!! Coincidence...??

- Newsweek magazine recently reported that secret Chinese labor camps were heavily involved in reproducing counterfeit modes in violation of all cultural treaties. "We know nothing of this," said spokesperson Wei Lin Chung, "and we accept no responsibility for interference in your decadent Western music. Long live Socialist pentatonic-ness!"

- Biologists recently discovered that removing the two hind legs from a certain species of Amazonian frog resulted in a noticeable change in its mating call. Musicologists who should have known better have christened the new note series the "Slowed Toad Mode".

I hear the phone ringing. I hope it's a telemarketer -- I get so lonely sometimes.