

# MODE KEY AND TONALITY

## Marshall Tuttle<sup>1</sup>

### INTRODUCTION

What do we mean when we say a piece is in a key? What do we mean when we say a piece is modal? What do we mean when we say a piece is tonal? This paper examines these questions and suggests a simple straightforward process of how composition evolved from modal to tonal and eventually out of tonal through an expansion of the same method.

### MODE

Speaking generically, modal music as practiced up until about 1600 was characterized by an eight note scale: CDEFGAB<sub>b</sub>B. Modes were originally monophonic and they were defined by a range, a reciting tone, and a final. The final was either at the extremes of the range or in the center. Throughout the course of the composition cadences could occur on most notes of the scale other than the final. The principal notes for cadential action were the mode's reciting tones.

Final	Range	Reciting tone
D	D – D	A
D	A – A	F
E	E – E	C
E	B – B	A
F	F – F	C
F	C – C	A
G	G – G	D
G	D – D	C

Example 1. Medieval modes, ranges and reciting tones as originally defined.

Over time, the system evolved from monophonic chant to polyphonic composed pieces. In that transformation, the concept of range becomes somewhat obscured, but modes maintain their individuality through emphasis on reciting tones. Each mode has different relationships between its elements, and thus all are structurally distinct and therefore audible in a way different keys are not.

By the 14<sup>th</sup> century, modal composition routinely integrated cadences on notes other than the final. Cadences utilized altered notes: a perfect interval was approached from an expanding major interval or contracting minor interval. For example, cadencing on D, a C<sub>#</sub> would be introduced to form a major sixth with E below, etc. These cadences were not equivalent to modulations in tonal music. Though notes outside the modal scale were introduced, those notes disappeared upon resolution and the composition immediately returned to the basic scale. It was therefore impossible to modulate. All modes had the same scale, and recursive relationships like the dominant of the dominant were impossible.<sup>2</sup>

## KEY

Tonal music, on the other hand has only a seven note scale. This uniquely distinguishes all scales, and allows extension of the practice of cadencing on tones other than the final/tonic by allowing music in the scales of those tones. Some modal pieces are indistinguishable from tonal pieces. “*Sumer is icumen in*” for example is as tonal as “*Row, row, row your boat*”. Neither modulates or cadences away from the tonic/final. Both pieces could be composed from modal or tonal procedures.

Modal music organically transformed into tonal music. The question of who did it, how and when that happened is unresolved. This paper suggests the process is both simple and has not gone to completion. Modal structures continued to be used after the transition.

Currently basic music theory acknowledges two modes, Major and Minor. The distinction begins with defining the minor in terms of the major scale:

C major:	CDEFGABC
A minor:	ABCDEFGA

Inherited directly from modal practice, G is routinely raised in order to cadence on A resulting in formation of the Harmonic minor scale:

ABCDEFG $\sharp$ A

There follows the dilemma of the awkward interval between F and G $\sharp$ , which leads to raising the F to provide a scale more suited to melodic action:

ABCDF $\sharp$ G $\sharp$ A

Thus, the minor scale has three separate scales for three separate functions:

Natural	for close modulations
Harmonic	for chord progressions
Melodic	for melodic writing

The same three functions carried by one major scale, are divided between three forms of the minor scale. All these characteristics existed in the modal period.<sup>3</sup>

A large part of Bach's output integrates modal and tonal practice, as was required for him when working modal chorale melodies into his compositional language. In this practice he uses an approach similar to that outlined above for the minor mode: the modes define modulation while the keys are expounded within by the relevant major and minor scales. For example, the mode on D (Dorian) has the notes DEFGABC. The points of modulation are therefore D minor, E minor, F major, G major A minor and C major. In cases where the modal melody would utilize the B $\flat$ , the keys of G minor and B $\flat$  major could occur and E minor could be discarded.

The mode on E (Phrygian) has a scale of EFGABCD. Modulations would occur to F major, G major, A minor, C major and D minor, as heard in the final chorale in Bach's *St. Matthew Passion*.

The F (Lydian) mode is practically indistinguishable from the major mode, since even in ancient times the B<sub>♭</sub> was available and commonly used.

The G (Mixolydian) mode has a scale GABCDEF, and modulations occur to A minor, C major, D minor, E minor and F major. This is heard in Bach's fughetta on "*Dies sind die heil'gen zehn Gebot*". Emphasis on C and lack of a major dominant key lead to unusual cadential patterns, such as use of the diminished seventh chord on C as a plagal cadence to confirm the key.

Modes on A and C are usually treated like modes on D and F respectively. The choice of B<sub>♭</sub> in the modes creates scalar structures for F and D identical to the major and minor scales.

The mode on B was a very late development and largely theoretical, but Bach uses it in his works on "*Das alte Jahr vergangen ist*". The final in the chorale is F# and possible modulations are to G major, A minor, B minor, C major, D major and E minor. Bach emphasizes E minor throughout the chorale, making the F# final difficult to justify musically. Bach's therefore justifies it textually.

There are many examples of Bach using modes as a guide to modulations while maintaining tonal practice within each of the keys. Thus, tonality and modality are not at all at odds with one another, they very easily blend when each element maintains its own sphere of action. This creates a richer practice than either alone. Surface level chord progressions allow changes of scales while the superstructure of key sequences provides an enhanced palette of harmonic colors. The practice persisted into the 20<sup>th</sup> century. Some examples are listed at the end of this paper.

## TONALITY

The question "What key is it in?" is flawed. There are two meanings for "key". One is local: what scale is controlling the immediate musical action? The other is global: what scale controls the flow of keys? The presumption in tonal music is that both are identical and either major or minor. This works relatively well for Corelli. It fails in works that don't end in the key they begin, or in which modulations are governed by some other structure than that scale. For the latter I suggest the question can't be answered as posed. A more appropriate question is: "What is the tonality of the piece?" in order to distinguish between the two meanings.

Consider the Prelude to *Tristan und Isolde*. Prevailing opinion is that it is in A major.<sup>4</sup> That scale, has no relationship to the keys in the piece which are A, C, E<sub>♭</sub> and G minor.<sup>5</sup> These tones form the actual "tonality" of the piece, prescribing keys visited and tonal action. The piece begins in A, transits C, attempts a climax in E<sub>♭</sub>, finally collapsing onto G. A is part of the tonal path, but is not a determinant of transitory keys. The tonality of the prelude is analogous to Bach's use of modes to determine modulations in his compositions. The tonality of the *Tristan* Prelude is in A<sup>♭</sup>, just as the tonality of Bach's chorale "*Ach Gott und Herr*" is B<sub>♭</sub> Lydian.

Making the distinction between local key and global tonality resolves many analytical problems and lends clearer insights into structure and expression. The distinction explains the possibility of persistence of modal key structures in tonal music. The distinction also explains compositions generally based on non-scalar relationships between keys. It further allows for expressive reference to modal ethos in tonal compositions.

## Appendix: Examples of Compositions with Modal Tonalities<sup>6</sup>

Bach: Sarabande from Cello Suite II: Phrygian

Mozart: Pedrillo's Serenade: Locrian

Beethoven: Heilige Dankgesang: Dorian/Major/Lydian

Schubert: Symphony 2, first movement: Mixolydian

Berlioz: "Rosa Purpurea" from *Benvenuto Cellini*: Phrygian

Chopin: Revolutionary Etude: Locrian

Schumann: "In wunderschönen Monat Mai": Phrygian

Brahms: Violin Concerto, first movement: mixolydian/major

Massenet: "*Meditation*" from *Thaïs* Phrygian.

Mahler: Adagietto: Lydian

Debussy: *Syrinx*: Phrygian.

- 1 inotmark@aol.com
- 2 The modal scale could be transposed for different compositions, but not within a composition.
- 3 All discussions here are generic. There are exceptions to every rule in every period.
- 4 Bailey, R., ed. *Prelude and Transfiguration from Tristan and Isolde* Norton, New York and London, 1985. p. 116. Bailey later asserts a dual tonic complex of A and C, p. 121. This latter assertion fails to connect with the E $\flat$  climax and G ending. A dual tonic complex of A minor and Eb major solves this problem. A number of theorists discussions are included pp. 149-290.
- 5 Discussed in: Tuttle, M. *Musical Structures in Wagnerian Opera*, Mellen, Lewiston NY, 2000. Chapter 3. Also see Tuttle M., "Resolution, Dissolution and Fractals" Academia.edu 2022
- 6 Some of these pieces are discussed in detail in Tuttle, M. *Modal Ethos and Semiotics in Tonal Music*, Edwin Mellen Press, Lewiston, NY 2016.