consists of six “whole tones” and two “half-tones”—not eight whole tones as it sounds.

In this common major scale (played on eight consecutive white notes on the piano, beginning on the note C), the half-tones are the intervals between the notes “mi” and “fa” and “ti” and “do”—positions 3 and 4, and 7 and 8. But on the dulcimer’s scale the half-tones are between “mi and fa” and “la and ti”—that is, positions 3 and 4, and 6 and 7. This particular arrangement corresponds to the notes b and c, and e and f exactly as shown in illustration 38. Indeed, the half-tones of the common major scale fall between the same notes, but where the notes are in relation to the other notes (what the sequence is) is different from that of the dulcimer’s scale.

In the case of the dulcimer’s fret scale, the “particular arrangement” of the eight tones is referred to as a “fixed scheme” in that the intervals between the notes fall into a never-varying, universally accepted pattern. This concept of fixed schemes is fundamental to the dulcimer’s modal tuning system, so keep it in mind as we go along...It’s all in the schemes.

The phenomenon of half-steps occurs because people began singing modes before they began writing them down. When people started writing music, it was for instruments like the harp, psaltery, and lyre that had individual strings for each of the notes, so the inconsistency of the two half-notes wasn’t apparent. But when people began making and playing fretted instruments, they discovered rather quickly that they had to justify these tonal inconsistencies, and they did so by developing the idea of fixed modal schemes.

Every modal scale has a different arrangement of these two half-tones within the structure of the six whole tones. The tonal scheme of the Mixolydian mode, then, is: whole tone/ whole tone/ whole tone/ half tone/ whole tone/ whole tone/ half tone/ whole tone, which then repeats as the scale moves into