

6.5 Analyzing Additional Contemporary Scales

When analyzing to determine the scale or mode of a passage:

STEP 1: Find the *tonal center*. See "*tonic by assertion*" on 6.3 *Analyzing Diatonic Modes*.

STEP 2: Create a *pitch inventory* listing all the notes low to high in one octave starting with the tonal center. Observe how many notes are in the scale (don't count duplicates).

STEP 3: Determine the scale or mode in use, based on the *tonal center* and *pitch inventory*.

Remember that scales and tonal centers may change from passage to passage within a single movement.

Scale Analysis: Example One



STEP 1: The tonal center is G. G is the first note, the last note, and the highest note. 2 out of 3 downbeats are G. G is also the only note with an accent, it occurs more times than any other note, and it is the longest note.

STEP 2: Listing all the notes in the passage from G to G in a single octave yields:



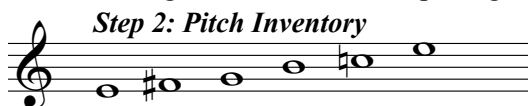
STEP 3: The scale above contains eight notes (don't count G twice). Examining the intervals confirms that this is a half-step/whole-step octatonic scale (h-W-h-W-h-W-h-W).

Scale Analysis: Example Two



STEP 1: The tonal center is E. Although B is emphasized in the first two measures, E is highest, lowest, the most frequent, and the longest rhythmic value (agogic accent). Also, B is a perfect fifth above E.

STEP 2: Listing all the notes in the passage from E to E in a single octave (*without a key signature*) yields:



STEP 3: Because there are five notes (don't count E twice), this is a *pentatonic* scale. The interval pattern (W-h-M3-h-M3) matches that of the Hirajoshi pentatonic.

Special Cases

1. The tonal center may not be the starting note of the scale, especially for pentatonic scales. For instance, suppose the melody using notes E-F#-G-B-C in example 2 were rewritten to use F# instead of E as the tonal center. In that case, it would have been the 2nd mode of the Hirajoshi pentatonic on E since F# is the 2nd step of that scale. See 6.4 *Additional Contemporary Scales* for the pentatonic modes.
2. Sometimes a note or two may be missing from the scale. If so, comment on which mode(s) it *could* be if the notes were there. Don't analyze pentatonic (5-note) scales as diatonic modes like Dorian, however!

Related terms: Polytonality, Bitonality, and Pandiatonicism

Polytonality = Simultaneous use of multiple tonal centers (usually one for each performer or staff).

Bitonality = Simultaneous use of 2 tonal centers (usually one for each performer or staff).

Pandiatonicism = Using the pitches of a major or minor scale without traditional harmonic progressions and resolution of dissonances.