

## 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:



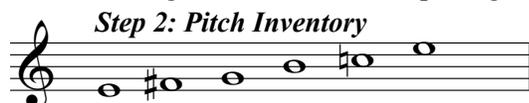
**STEP 3:** The scale above contains eight notes (don't count G twice). Examining the intervals confirms that this is a half-step/whole-step octatonic scale (h-W-h-W-h-W-h-W).

### 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.