# CHAPTER 9
# CHROMATIC, WHOLE TONE, AND PENTATONIC SCALES

Chromatic, whole tone, and pentatonic scales cannot be analyzed using tetrachords. These scales do not form regular keys; therefore, none have regular key signatures. Chromatic and whole tone scales require accidentals when they are used with key signatures.

## CHROMATIC SCALE

The *chromatic scale* consists entirely of half steps. There are twelve half steps (thirteen pitches) in an octave. If all thirteen pitches (twelve half steps) within an octave are represented in an ascending or descending order, the result is a chromatic scale. The name of the chromatic scale is the first note of the scale regardless of the key signature.

When notating chromatic scales, any pitch requiring an accidental is written as a chromatic alteration of the *previous* pitch.

D chromatic scale with a key signature of 2 flats

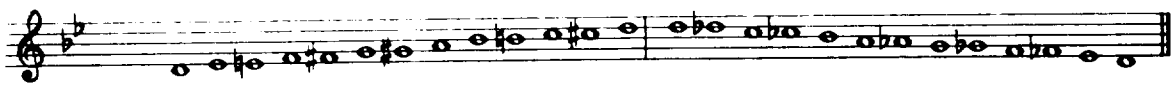
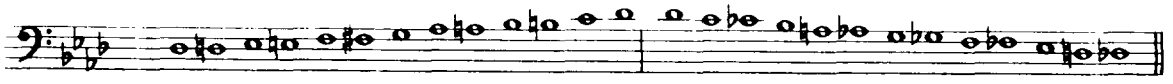


*Figure 9.1: Chromatic Scale.*

Double sharps and double flats should be avoided when notating chromatic scales. Therefore, natural signs on adjacent staff degrees are used to avoid double sharps and double flats.

D♭ chromatic scale with a key signature of 4 flats



A chromatic scale with a key signature of 3 sharps

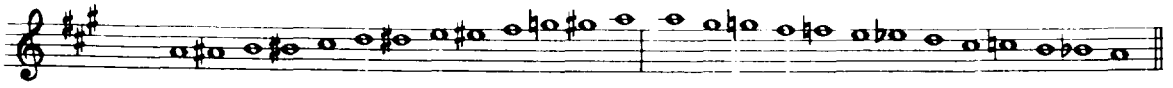
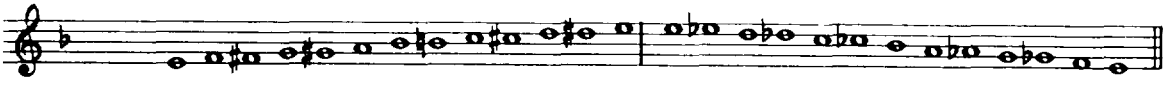


*Figure 9.2:* D♭ *and* A *Chromatic Scales.*

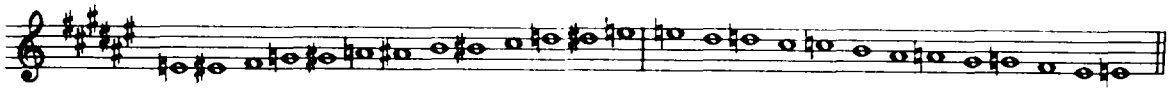
The same chromatic scale can be notated several ways. The key signature determines the notation of the chromatic scale.

E chromatic scale with a key signature of 2 sharps

E chromatic scale with a key signature of 1 flat



E chromatic scale with a key signature of 6 sharps



E chromatic scale with a key signature of 5 flats

*Figure 9.3:* E *Chromatic Scales.*

## WHOLE TONE SCALE

The *whole tone scale,* as its name implies, is a scale arranged to sound in whole steps. The whole tone scale is notated using accidentals to create whole steps.

The same whole tone scale can be notated several ways. The key signature often determines the notation of the whole tone scale.

Since the whole tone scale consists of seven pitches instead of eight (including the octave), one of the staff degrees within the scale will not contain a note. The whole step that is indicated by non-adjacent staff degrees may occur anywhere in the scale.

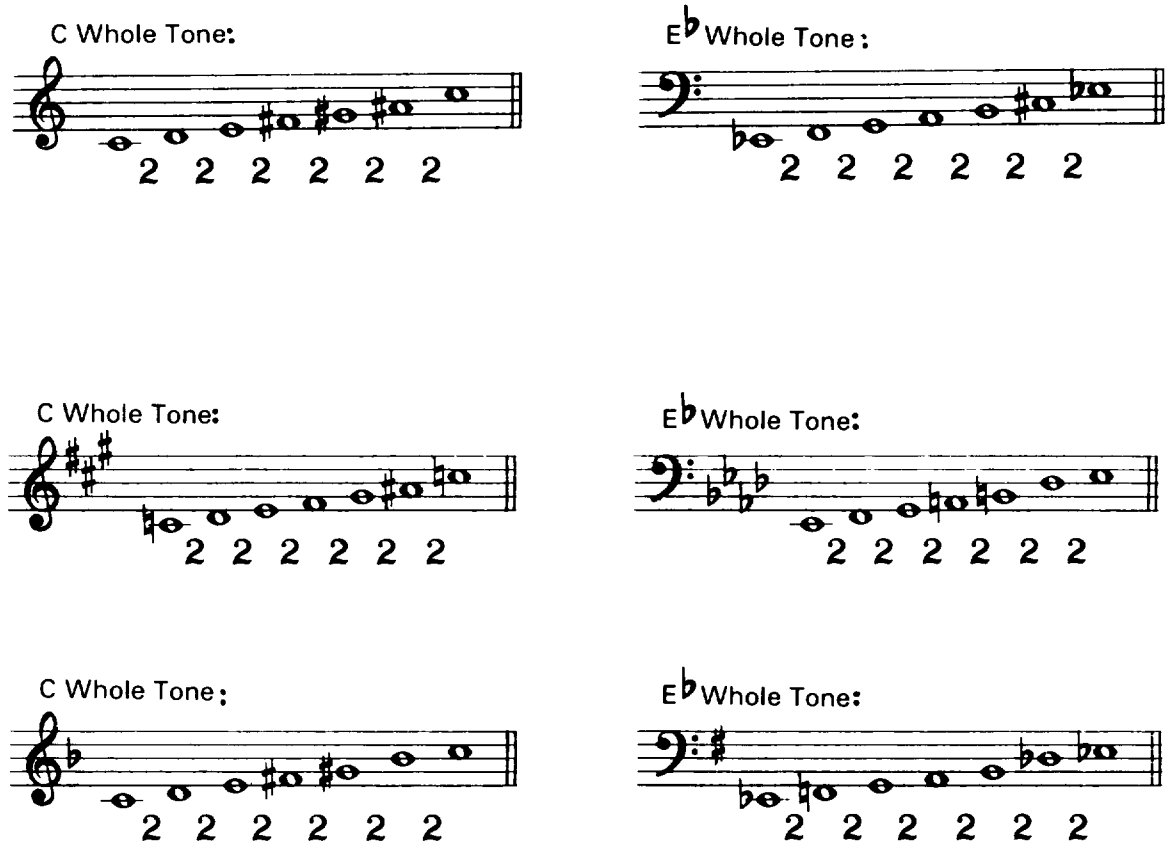



*Figure 9.4: C and E♭ Whole Tone Scales.*

## PENTATONIC SCALES

A *pentatonic scale* consists of five tones (six pitches including the octave). Two common pentatonic scales are the pentatonic major and the pentatonic minor. No half steps occur in either of these scales.

### *Pentatonic Major*

When constructed on the first degree of a major scale, a *pentatonic major scale* contains the tonic, supertonic, mediant, dominant, and submediant of that scale. The pentatonic major scale corresponds, on a keyboard, to a *black key* scale from *G♭* to *G♭*.

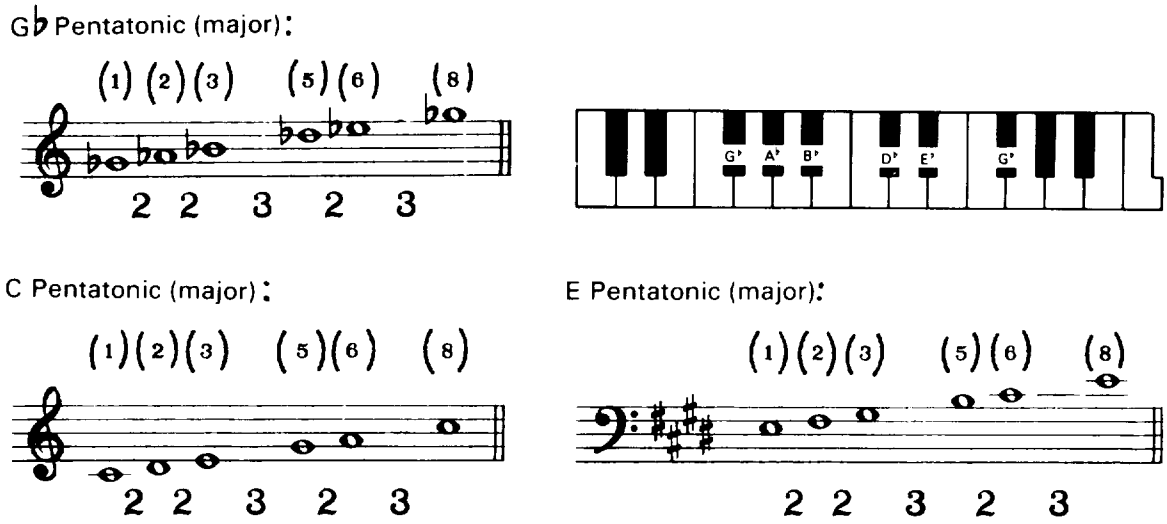



*Figure 9.5: Pentatonic Major Scales.*

The tones omitted are the tendency tones in major: the subdominant and leading tone.

### *Pentatonic Minor*

When constructed on the first degree of a natural minor scale, a *pentatonic minor scale* contains the tonic, mediant, subdominant, dominant, and subtonic of that minor scale. This corresponds to the first, lowered third, fourth, fifth, and lowered seventh scale degrees (1, ♭3, 4, 5, ♭7) of the parallel major scale. The pentatonic minor scale corresponds, on a keyboard, to a *black key* scale from *E♭ to E♭* .

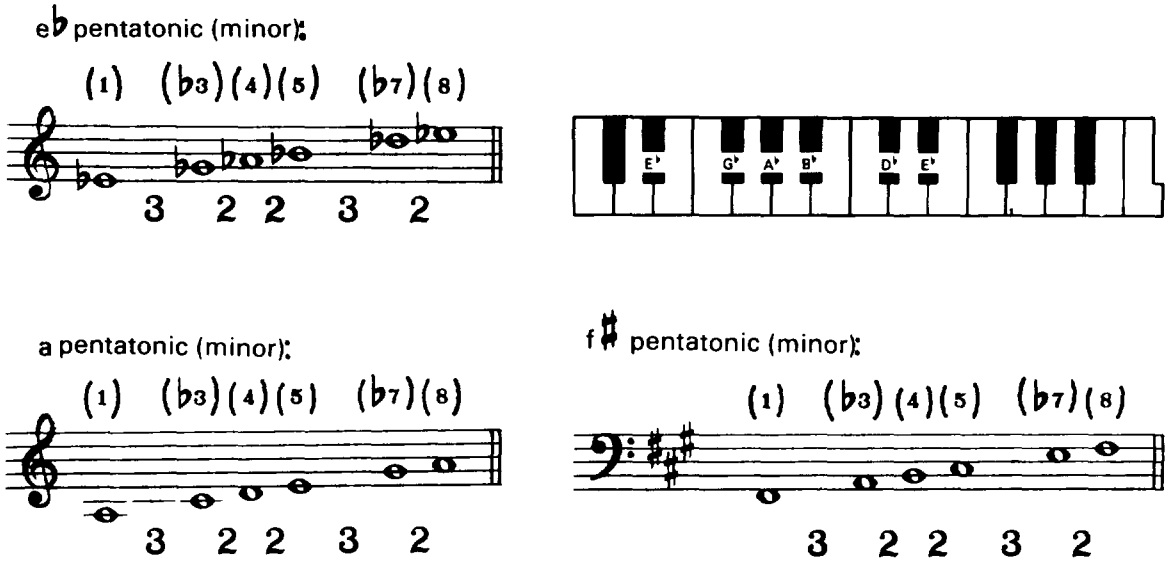



*Figure 9.6: Pentatonic Minor Scales.*

The tones omitted are the active tone and the tendency tone which form half steps in natural minor: the supertonic and submediant.