

## Scale Formations in Twentieth-Century Music

Several of the scales presented here might already be familiar to some of your students. The modal scales, for example, may have been discussed in an earlier semester of music theory or in a music history class, and jazz students will probably have been exposed to the diminished (octatonic) scale. This previous exposure may or may not prove helpful to the student who is reading this chapter.

Students who know of the pentatonic scale may have the notion that there is only one pentatonic mode: the one that can be notated as C–D–E–G–A–C, with C as tonic. It will take some doing to convince these students that the “diatonic pentatonic” scale has, in fact, five modes and that other, more chromatic, pentatonic scales do occur.

Many instructors approach the teaching of modal scales through the patterns found on the white keys of the piano. This is especially true in music history courses, where the idea has some historical validity. My own approach, as outlined in the chapter, is to teach these scales as variants of the major and natural minor scales. While this method has no historical or even theoretical basis, it leads to the greatest proficiency (but only if the students are proficient in major and minor scales to begin with).

It is something of a challenge to learn to recognize that a passage is octatonic, or mostly so. My approach is to find two pitch classes that do not belong to the same diminished-seventh chord—C and D, for example—and to look for pitch classes that do *not* belong to the third diminished-seventh chord—in this case, C $\sharp$ , E, G and B $\flat$ . If you cannot find these pitch classes, or if they have a subordinate function, then the passage may well be octatonic.

Finally, students tend to be very literal when it comes to identifying scales in the context of a theory class. While they would have no problem in “real life” identifying the major scale that underlies “Row, Row, Row Your Boat,” in a classroom situation they might be distressed by the missing scale steps. It would be helpful to try to overcome this, while at the same time making an effort to find quiz examples that are unambiguous.

### Answers to Selected Exercises

#### Part A: Fundamentals

1. G–A–B–D–E–G    F $\sharp$ –G $\sharp$ –A $\sharp$ –C $\sharp$ –D $\sharp$ –F $\sharp$     B–C $\sharp$ –D $\sharp$ –F $\sharp$ –G $\sharp$ –B    E $\flat$ –F–G–B $\flat$ –C–E $\flat$
  
2. E–F $\sharp$ –G $\sharp$ –B $\flat$ –C–D–E    C $\sharp$ –D $\sharp$ –F–G–A–B–C $\sharp$     A $\flat$ –B $\flat$ –C–D–E–G $\flat$ –A $\flat$   
 WT-0                      WT-1                      WT-0  
 (Enharmonic equivalents should be accepted.)
  
3. a. F–G–A $\flat$ –B $\flat$ –C–D–E $\flat$ –F    e. A–B $\flat$ –C–D–E–F–G–A    i. D $\flat$ –E $\flat$ –F–G–A $\flat$ –B $\flat$ –C–D $\flat$   
 b. E–F $\sharp$ –G $\sharp$ –A–B–C $\sharp$ –D–E    f. A $\flat$ –B $\flat$ –C $\flat$ –D $\flat$ –E $\flat$ –F $\flat$ –G $\flat$ –A $\flat$     j. C–D–E $\flat$ –F–G–A–B $\flat$ –C  
 c. E $\flat$ –F–G–A–B $\flat$ –C–D–E $\flat$     g. G–A–B $\flat$ –C–D–E $\flat$ –F–G    k. B–C–D–E–F $\sharp$ –G–A–B  
 d. D–E–F $\sharp$ –G–A–B–C–D    h. F $\sharp$ –G–A–B–C–D–E–F $\sharp$     l. B $\flat$ –C–D–E $\flat$ –F–G–A–B $\flat$

## Chapter 2

4. a.  $F^\sharp-G-A-B^\flat-C-C^\sharp-D^\sharp-E-F^\sharp$  OCT (0,1)      d.  $A-B-C-D-E^\flat-F-F^\sharp-G^\sharp-A$  (could begin on another note) OCT (2,3)
- b.  $A^\flat-B^\flat-B-C^\sharp-D-E-F-G-A^\flat$  OCT (1,2)      e.  $D^\sharp-E-F^\sharp-G-A-B^\flat-C-C^\sharp-D^\sharp$  (could begin on another note) OCT (0,1)
- c.  $D-E^\flat-F-F^\sharp-G^\sharp-A-B-C-D$  OCT (2,3)      f.  $A^\sharp-B-C^\sharp-D-E-F-G-G^\sharp-A^\sharp$  (could begin on another note) OCT (1,2)

(Enharmonic equivalents should be accepted throughout.)

5. a.  $A \quad f^\sharp$
- b.  $B^+ \quad C^{\sharp+} \quad \text{etc.}$
- c.  $c^\sharp \quad D \quad E \quad f^\sharp \quad g^{\sharp^0} \quad A \quad b$
- d.  $A^\flat \quad b^\flat \quad c^0 \quad D^\flat \quad e^\flat \quad f \quad G^\flat$
- e.  $e^0 \quad e \quad E \quad f^0 \quad g^0 \quad g \quad G \quad g^{\sharp^0} \quad a^{\sharp^0} \quad a^\sharp \quad A^\sharp \quad b^0 \quad c^{\sharp^0} \quad c^\sharp \quad C^\sharp \quad d^0$

(Enharmonic equivalents should be accepted for this problem.)

- f.  $B^+ \quad C^+ \quad C \quad c \quad E^\flat+ \quad E^+ \quad E \quad e \quad G^+ \quad A^{\flat+} \quad A^\flat \quad a^\flat$

6. a. Augmented scale.
- b. Augmented scale, chromatic scale

### Part B: Analysis

1. Pentatonic
2. a. Pentatonic
- b. Dorian
- c. Mixolydian
3. Chromatic
4. a. Dorian
- b. Phrygian
- c. Locrian
- d. Lydian-Mixolydian

- e. No. The pitch-classes are: D E $\flat$  E F $\sharp$  G $\sharp$  A B $\flat$  C D. The right hand part is whole-tone, except for the A in m. 19. The left hand has an altered I–V–I cadence.

5. Diminished (Octatonic)

6. a. Augmented

b. Augmented

c. Chromatic

d. Dorian

7. a. Whole-tone

b. Pentatonic