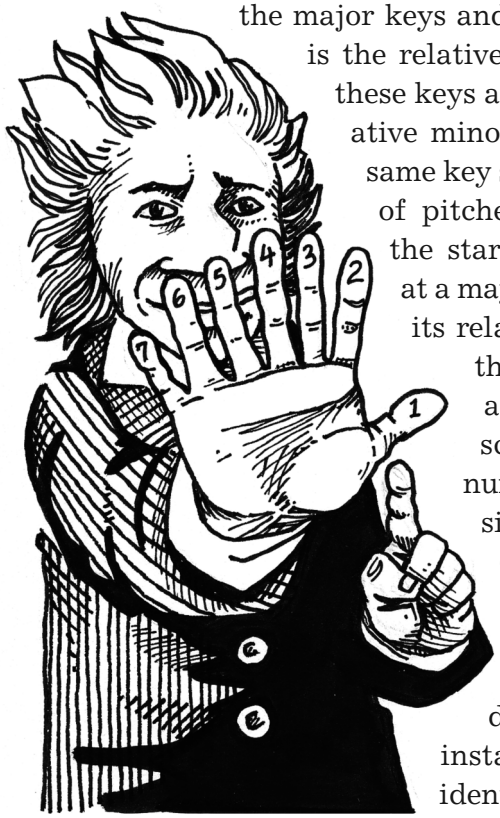
Chapter 6:

MINOR SCALES AND KEYS

YOU MAY BE a little worried at this point about the prospect of learning a whole new set of key signatures for the minor keys. Well, there's good news—you've already learned all of the key signatures you need to know. In this chapter, we'll see first how the minor keys are related to the major keys (yes, they *are* related and they share key signatures); then we'll learn how to construct the three different types of minor scales. Although there are three different types, it's important to keep in mind that there is only one key signature for all of them.

There are two different types of relationships between the major keys and the minor keys. The first is the relative relationship; we refer to these keys as the relative major or relative minor. Relative keys share the same key signature and the same set of pitches—the only difference is the starting pitch! When looking at a major scale, we can determine its relative minor by identifying the sixth tone (also known as a scale degree) of the scale. A ***scale degree*** is a number from one to seven assigned to each of the seven different pitches of a scale. The first pitch is the first scale degree, the third pitch is the third scale degree, and so on. In the instance of F major, we can identify the sixth scale degree



as D; therefore, the relative minor of F major is D minor (see Figure 6.1). Again, notice that both scales share the same pitches and the same key signature. The only difference is the starting pitch. This is the simple, yet important, relationship between relative keys. You can think of these keys as existing in pairs, one major and one minor. Another way to identify the relative minor of a major key is to start on the first scale degree (the tonic) and count backwards three half steps. Either method will lead you to the same pitch, which is the tonic of the relative minor.

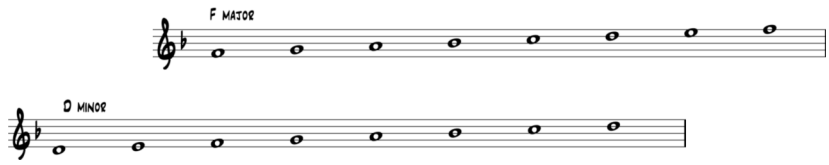
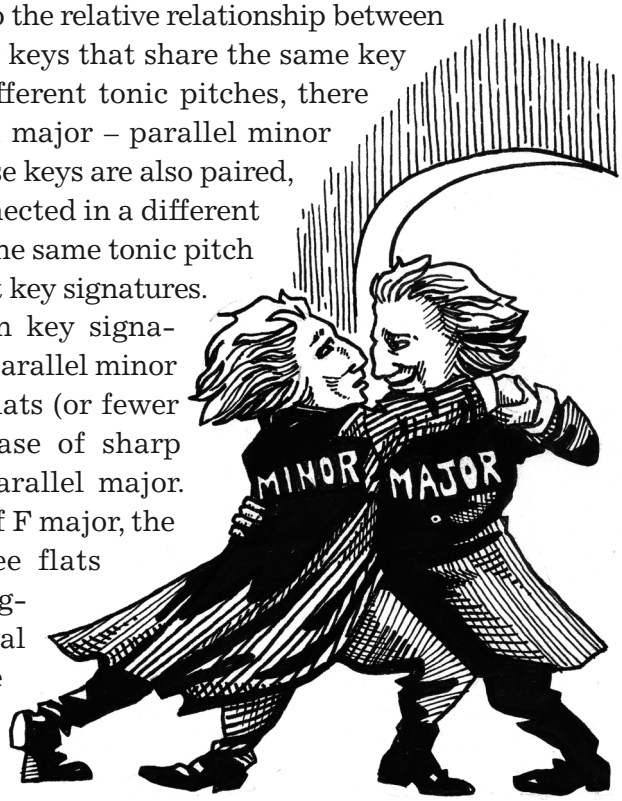


Figure 6.1. *Example of relative major and minor keys*

In addition to the relative relationship between major and minor keys that share the same key signature but different tonic pitches, there is also a parallel major – parallel minor relationship. These keys are also paired, but they are connected in a different way: they share the same tonic pitch but have different key signatures. The difference in key signatures is that the parallel minor has three more flats (or fewer sharps in the case of sharp keys) than its parallel major. In the example of F major, the addition of three flats creates a key signature with a total of four flats (see Figure 6.2).



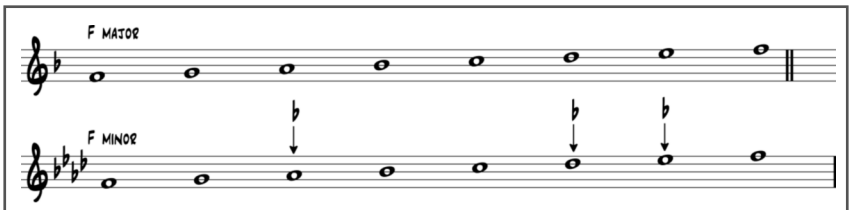


Figure 6.2. Example of parallel major and minor keys

You will notice two important characteristics of the relationship between a major key and its parallel minor. The first is that they share the same tonic but that their key signatures are different. The second is that the third, sixth, and seventh scale degrees are each lowered by a half step. In case you were wondering, this is why the parallel minor of a major key has three additional flats in the key signature. In another example, A major's parallel minor is A minor; A major has three sharps and A minor has no sharps or flats in the key signature. Remember that subtracting sharps is the same as adding flats.

It should be easy enough to find the parallel major from the minor key because they share the same tonic and, therefore, the same letter name. For example, the parallel major of G minor is G major, and the parallel major of D minor is D major. But how does one find the *relative* major of a minor key? There are two ways of doing this, and they are simply the inverse of what you learned for finding the relative minor of a major key: 1) count three half steps *up* from the tonic to arrive at the tonic of the relative major, or 2) simply find the third scale degree of the minor scale, which is the tonic of its relative major. In the instance of F minor, the third scale degree is A♭, which makes A♭ major the relative major of F minor. A♭ major's key signature has four flats, the same as F minor.

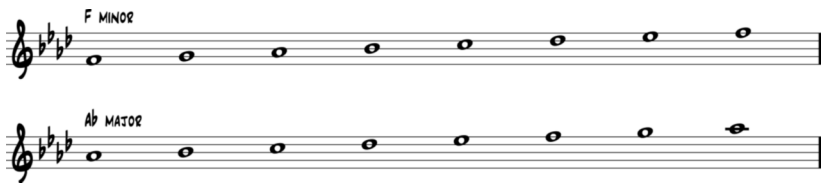


Figure 6.3. *F minor and its relative major, A♭ major*

Figures 6.4 and 6.5 will be helpful to you in associating minor keys with their respective key signatures. Again, remember that these are the same key signatures with the same order of sharps and flats as the major keys!

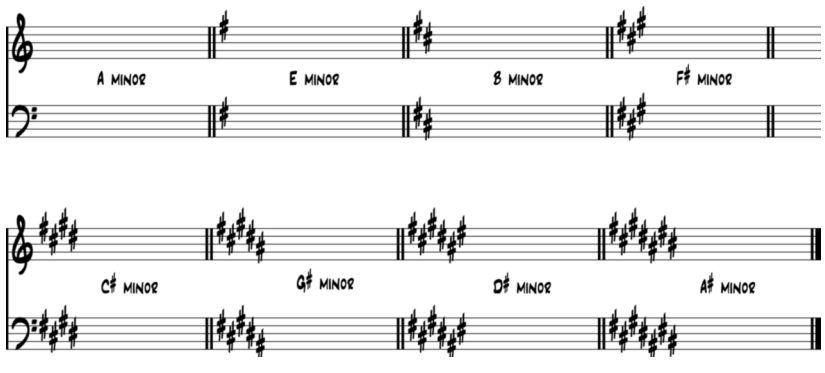


Figure 6.4. *Key signatures for minor keys with sharps in the key signature*

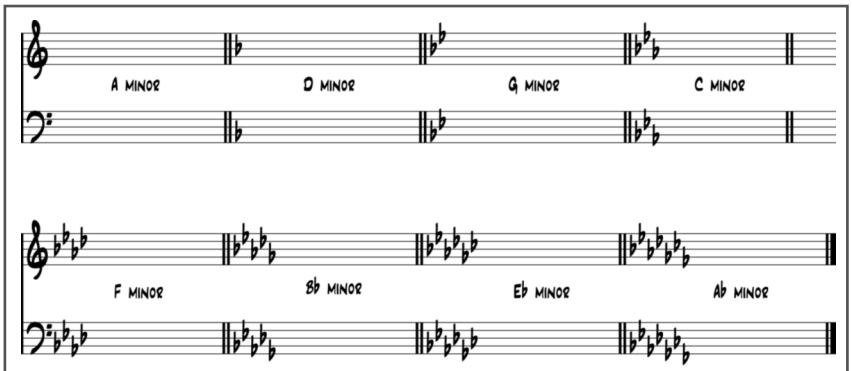


Figure 6.5. *Key signatures for minor keys with flats in the key signature*

Before moving on to learn about constructing the three different types of minor scale, it's worth reviewing the circle of fifths, especially in light of our new knowledge about the relationship between major and minor keys. Get to know Figure 6.6 like your best friend!

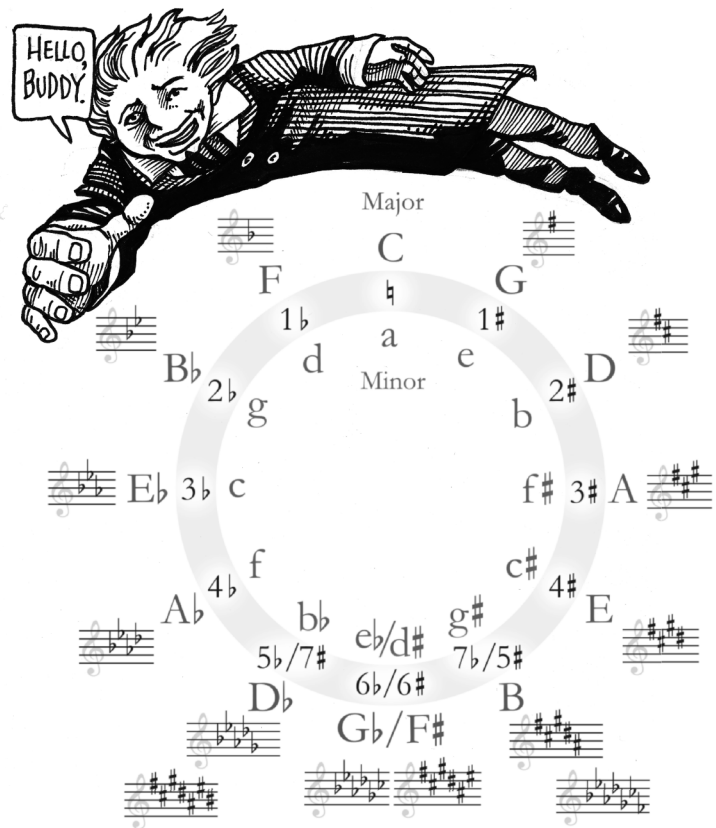


Figure 6.6. *The circle of fifths with both major and minor keys*

It was noted at the beginning of this chapter that there are three types of minor scales. In reality, it is better to think of these as three variants of a single minor scale. The half step between the second and third scale degrees is what gives all variants their minor "flavor." The sixth and seventh scale degrees, however, are fairly unstable, and that is what allows for the variation in minor keys. This instability reflects the fact that, in two of the variants, the sixth and/or seventh scale degrees are borrowed from the parallel major. Composers don't sit down and declare that they will compose a piece in a specific variant of minor; rather, they tend to use elements of all three.

The first type of minor scale, seen in the earlier figures, is called ***natural minor***. It is referred to this way simply because it derives naturally from its relative major. It exists without any alterations (and therefore without any added accidentals). In comparison to the major scale, it features flatted third, sixth, and seventh scale degrees. The F minor scale in Figure 6.7 is an example of a natural minor scale.

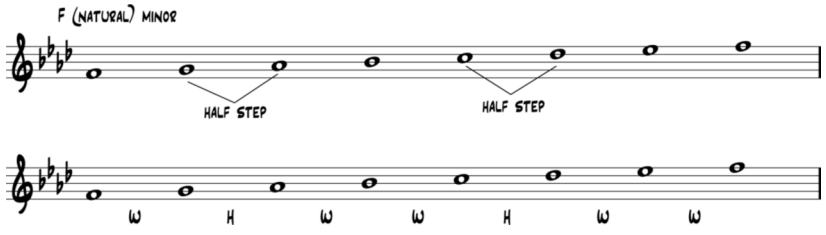
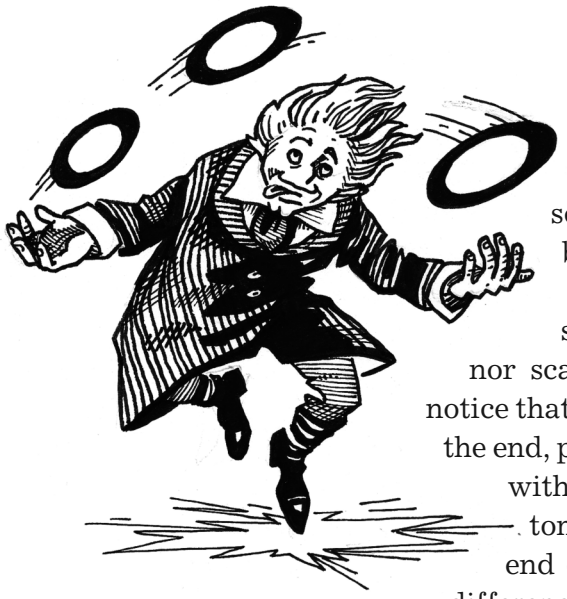


Figure 6.7. *F (natural) minor scale*

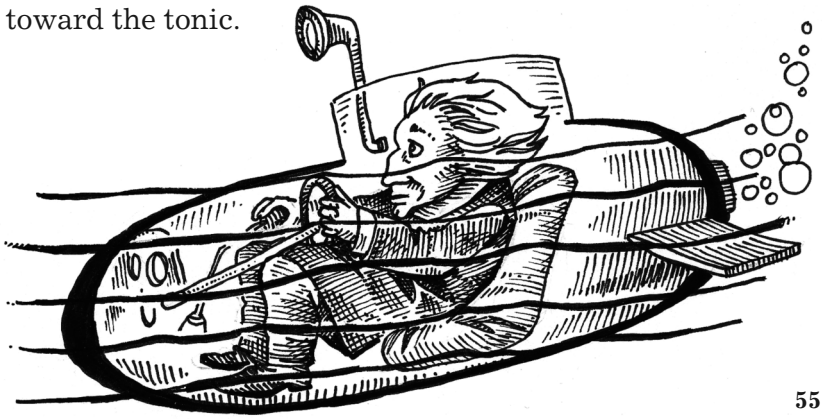
Like the major scale, the natural minor scale is a fixed pattern of whole steps and half steps. Notice, however, that the half steps occur in different places than they do in the major scale. The pattern of whole steps and half steps has also changed: whole – half – whole – whole – half – whole – whole. With the exception of A minor (the relative minor of C major), accidentals are necessary to keep the pattern intact. F minor requires the use of four flats to maintain the pattern necessary for natural minor. Just as in major scales,



the letter names of the pitches in minor scales must be always be sequential.

If you can play or sing through the F minor scale above, you might notice that it sounds a bit odd at the end, particularly compared with what you are accustomed to hearing at the end of a major scale. The difference is in the interval between the seventh scale degree and the first scale degree at the end of the scale. Instead of being a half step apart, as in a major scale, they are a whole step apart in a natural minor scale. Because the seventh scale degree is a whole step away from the tonic, it is called the ***subtonic***, not the leading tone. The lack of a half step between the seventh and first scale degrees results in less of a pull toward the tonic, and the tonic seems to have less gravity than in the major scale.

Composers found a remedy for this: they borrowed the seventh scale degree from the parallel major, thus creating ***harmonic minor***. The term will make a bit more sense when we move on to the next unit. For now, you should know that all of the scale degrees of harmonic minor are the same as natural minor except for the seventh scale degree, which is raised a half step to create a leading tone. Composers do this to create stronger harmonies and to cause a greater pull toward the tonic.



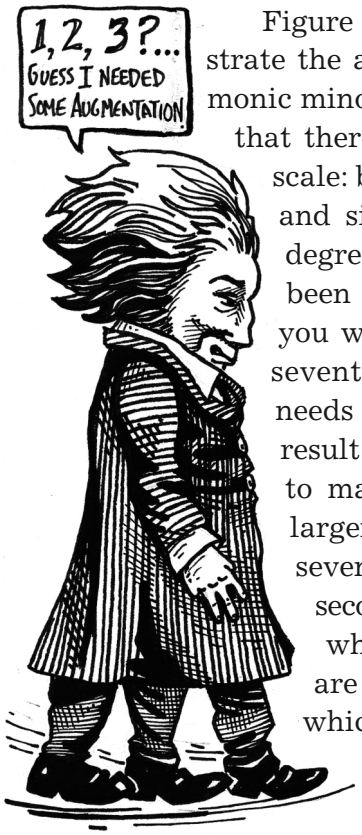


Figure 6.8 uses F minor again to demonstrate the alteration needed to create a harmonic minor (and resulting intervals). Notice that there are now three half steps in the scale: between the second and third, fifth and sixth, and seventh and first scale degrees. The seventh scale degree has been raised from E-flat to E-natural; you would not use a sharp to raise the seventh scale degree, because it only needs to be raised a half step. The other result of raising the seventh scale degree to make it the leading tone is a now larger interval between the sixth and seventh scale degrees: an augmented second. While it may look like a regular whole step, the D-flat and E-natural are actually *three* half steps apart, which is why it is called an augmented second. It is often difficult to sing or play because it *sounds* wider than it looks on the staff. This interval also gives the scale a somewhat exotic quality; the augmented second interval is frequently found in Middle Eastern music. We will learn more about intervals in the next chapter.

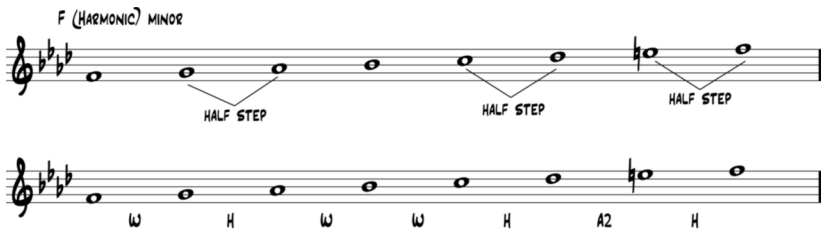


Figure 6.8. *F harmonic minor*

Composers generally try to avoid awkward and difficult intervals in their music. The somewhat awkward and difficult

augmented second interval led composers to raise not only the seventh scale degree, but also the sixth scale degree, thereby eliminating the augmented interval. The result of this is known as ***melodic minor***. Unlike natural minor and harmonic minor, melodic minor has a scale used for ascending melodies and a different scale for descending melodies. The ascending scale for melodic minor raises both the sixth and seventh scale degrees by a half step, while the descending scale returns them to their "natural" state—the same as in natural minor.

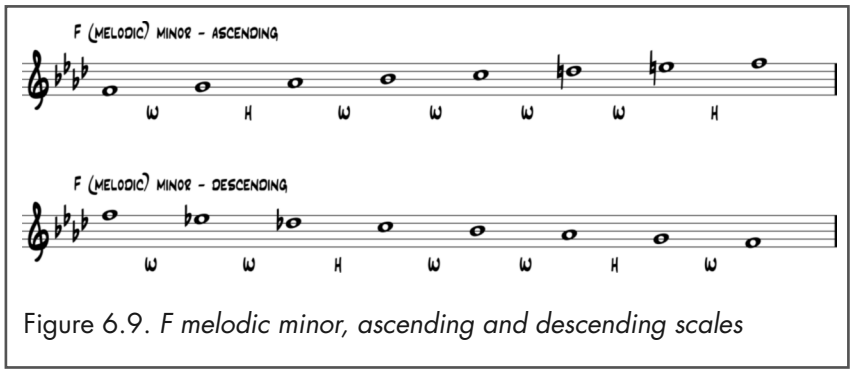


Figure 6.9. *F melodic minor, ascending and descending scales*

Logically, the melodic minor scale is used to make a line sound more fluid, and thus more easily played or sung. You may have noticed already that the only difference between the ascending version of the melodic minor scale and a major scale is the third scale degree! This reinforces the relationship between parallel keys, as well as the borrowing of the sixth and seventh scale degrees from the parallel major. Because the leading tone is generally needed only in melodic passages that move upward, the use of natural minor for the descending scale is suitable for fluidity and playability.

When considering minor scales, remember that you need to look *inside* the music to see which variant of minor is being used and that they are just that—variants of a single minor scale.