Harmonic rhythm

Harmonic rhythm is the rhythm of the **changes in chord roots**—in other words, every time there's a new chord (new Roman numeral), there's a new articulation in the harmonic rhythm. When analyzing a passage, do the following: 1) write the meter signature and the harmonic rhythm (note stems pointing down); then 2) write in the key, a colon, then show the Roman numeral progression. As you can see, the three examples below are all in common time and in C Major; the harmonic rhythms and Roman numeral analyses are shown underneath the score. Notes about them:

Example 1: self-explanatory; it's there to show the simplest, clearest example.

Example 2: see the first measure. Since harmonic rhythm refers to changes in **chord roots** (Roman numeral functions), all of m. 1 becomes a whole note—there's no actual change in Roman numeral function. However, the changes in chord inversion (from root position to first inversion then back to root position) *are* shown. The dashes are used to show a repeated chord of the same harmonic function—here, tonic. The same thing occurs in m. 2 with the V chord—the harmonic rhythm is a half note, but the change in inversion is still shown. Another point about measure 2: there aren't really rests in harmonic rhythm, which is why the harmonic rhythm of the IV chord is shown as a half note (it's assumed that the ear continues hearing the IV function until the change to V on the third beat).

Example 3: in the first measure, the V chord turns into a V^7 at the third beat. The harmonic function doesn't change, so the harmonic rhythm doesn't get a new articulation. The addition of the seventh to the V chord (see the move to F5 in the alto) *is* reflected in the Roman numeral analysis.

So: dashes are used to show a repeated Roman numeral function. There's no need to write out the Roman numeral again and again. The situation shown below (the b minor example) often happens: a triad (here, the tonic) is heard for two measures. The harmonic rhythm simply shows the two measures tied together and the Roman numeral is shown just the first time. If you wish, you could include a dash in m. 2 to make it clear that the tonic function is continuing.

Harmonic cadences

Perfect authentic cadence (PAC): $V^{(7)} \rightarrow$ I. In a perfect authentic cadence, the bass must move sol $\rightarrow$ do and the soprano must conclude on do (usually it resolves re $\rightarrow$ do or ti $\rightarrow$ do). Hence, both chords must be in root position. This cadence provides maximal harmonic and melodic closure.

Imperfect authentic cadence (IAC): $V^{(7)} \rightarrow$ I. An imperfect authentic cadence also features a dominant to tonic progression, but there's some element which makes it "imperfect." The "imperfections" may be one or both of the following: 1) the bass *does not* move sol $\rightarrow$ do (thus, an inversion of one or both chords is involved); or 2) the soprano *does not* conclude on do (a common example: the soprano resolves re $\rightarrow$ mi rather than re $\rightarrow$ do). An IAC has less closure than a PAC due to the "imperfection."

The point here: both the PAC and the IAC involve a dominant to tonic progression. The PAC also has very specific scale degree motions (arrivals on do, or $\hat{1}$) in the outer voices; the IAC somehow breaks down the "perfect" scale degree motion.

Half cadence (HC): X $\rightarrow$ V (where X represents "something"—often I, IV, or ii). A half cadence involves an arrival at the dominant chord at the end of the phrase. Half cadences sound quite "open"—rather than a sense of closure, there's a sense of "wanting to go on." Note that HCs usually occur on V; they much more rarely occur on V^7. The V is usually in root position.

Deceptive cadence (Dec): $V^{(7)} \rightarrow$ vi (or VI if in a minor key). The deceptive cadence *deceives* the listener—one expects the dominant triad (or dominant seventh chord) to resolve to the tonic, but instead it resolves to the submediant triad. Deceptive cadences usually are somewhat of a surprise, and therefore they sound rather "open"—they "want to go on." In a deceptive cadence, both chords are usually in root position.

Plagal cadence (Plagal): IV $\rightarrow$ I. Sometimes called the "amen cadence," the plagal cadence is comparatively rare in common practice music, though it very occasionally may occur. This cadence sounds somewhat "softer" than the authentic cadence because there is no ti $\rightarrow$ do motion present. Both chords are usually in root position.

How do harmonic cadences relate to period structure?

Remember that a period is a group of two or more phrases with openness and eventual closure. The most archetypal example is a phrase which concludes with a **HC** followed by one which concludes with a **PAC**. A **HC** then later an **IAC** also qualifies. People argue about whether **IAC** then **PAC** forms a period; for our purposes, we'll say that it does. Sometimes the first phrase may conclude with a **Dec** or **Plagal** cadence; a period is still present if the ultimate phrase concludes with some sort of **AC**.

Texture

The musical parameter of texture refers to the number of parts or lines present and their relationships. The register (low, middle, high) and the spacing (close, average, wide) of the different parts are also significant. Some theorists even include the timbre, dynamics, and types of articulation as aspects of texture. Texture often functions as an important *musical signal*—an alteration of the texture (however subtle) can signal upcoming change of some kind such as a transition or a new theme. There are *four* broad texture types: heterophony, monophony, polyphony, and homophony.

Heterophony

Heterophonic texture consists of simultaneous modifications of the same musical (melodic) material. In other words, it is two or more equally active lines sharing the same (or virtually identical) material. This type of texture is rare in Western common practice music.

Monophony

Monophonic texture simply refers to a single melodic line. It is fairly rare in Western common practice music; Gregorian and other chants are the best known examples.

Polyphony

Generally speaking, polyphonic texture refers to two or more independent voices of equal structural importance. There are at least two broad categories of polyphony: **imitative** and **non-imitative**.

I. **Imitative polyphony**

Imitative polyphony consists of two or more independent voices which "converse" with statements of an *identical* or very similar musical idea. The "musical idea" is often a motive, though it may be something longer, too. The imitation must be identical or very similar to the original idea—at the very least, the rhythm and the pitch shape are retained.

Once you've determined that the texture is imitative polyphony, it's possible to go into more detail, analyzing such things as *how strict* the imitation is, the *pitch interval* of imitation (how far apart the parts are intervallically), and the *time interval* of imitation (the number of beats which elapse between the original statement and the imitation). The opening of J.S. Bach's *Invention in C Major*, BWV 772, is a good example of strict imitation at the octave at the time interval of two beats:

It's no coincidence that the example above is by Bach—imitative polyphony was most prevalent in the Renaissance and especially Baroque periods, culminating in the fugue.

When strict imitation carries on for a lengthy time period—say, an entire section or piece—then you are dealing with a **canon** of some kind.

See the contrapuntal works on pp. 434-463 of *Music Sources* for further examples.

II. **Non-imitative polyphony** (sometimes called **give and take**).

Non-imitative polyphony consists of two or more independent voices which "converse," but with *different* musical ideas. This sometimes involves the same *rhythmic* motive but different *pitch shapes*. The opening of Bach's *Adagio in C Minor* is a good example:

Homophony

Generally speaking, homophonic texture consists of one prominent line and one or more subordinate parts. There are at least two broad categories of homophony: **chorale texture** and **melody and accompaniment**.
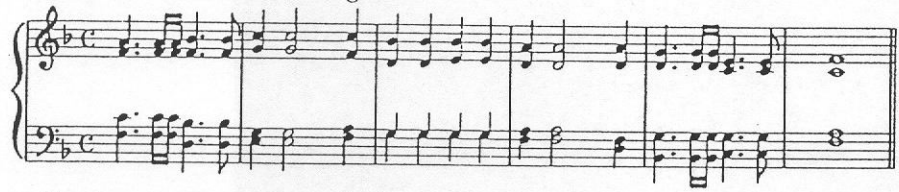
I. **Chorale texture**

Chorale texture usually involves a note-against-note (also called homorhythmic or 1:1) relationship between the voices. Despite this relationship, one might still locate a melody—often it's in the top voice. The examples below (gratefully borrowed from Dr. Mary Arlin) show a simple harmonic phrase and then several types of chorale settings based on these harmonies. Chorale settings were especially prominent in the Baroque period.

a. Chordal setting

b. For instruments: brass, strings

c. Vocal setting, motet style

d. Chorale, baroque style

II. Melody and accompaniment

Melody and accompaniment is the most familiar of all types of texture. Piano works, vocal literature, dances, and many other genres include a primary melody and a subordinate accompaniment which supports it. Melody and accompaniment texture is used in all musical periods and was especially prominent in the Classic and Romantic eras. Most of the passages analyzed in this course have a melody and accompaniment texture.

An initial consideration is the **location** of the melody in relation to the accompaniment. Is it *above* the accompaniment (often the case), does it fall in the *middle* of the accompaniment, or is the melody *below* the accompaniment?

A related term is **textural inversion**, which simply means that the part which had the *melody* takes over the *accompaniment* and *vice versa*. The simplest example: envision a piano piece in which the right hand has the melody and the left has the accompaniment. At the point where the hands switch roles, textural inversion has occurred.

Once you have identified *where* the melody is, it is important to identify **what type of accompaniment** is used. In a very general way, one might characterize accompaniments as involving **block chords** or as involving **broken chords** of some kind.

The following examples are a series of variations on the opening of a familiar tune. As you can see, the melody (and its location) and harmony are not varied; what's changed (and thus featured) are the types of accompaniment.

A. Accompaniments involving some sort of **block chords**

1. Melody with a **sustained chord** accompaniment: this texture is the simplest and clearest, yet it does not have a great deal of rhythmic interest.

2. Melody with a **repeated chord** accompaniment: the texture is activated a bit by the rearticulation of the accompanimental chords. This appears to be chorale-like, though there is clearly a prominent melody and subordinate harmonic support.

3. Melody with an accompaniment best characterized as **rhythmic punctuation**: here, the accompanimental chords are interjected as punctuations on the second beat of each measure.

B. Accompaniments involving some sort of **broken chords**

Most accompaniments involve a "spreading out" or projection through time of the various chord members. This breaking-up of the chords lightens the texture and gives the music more forward direction or motion; however, the harmony and even the voice leading need not be altered.

1. Melody with a **broken chord** accompaniment.

2. Melody with an **arpeggiated** accompaniment (note the arpeggiation of complete chords).

3. Melody with **Alberti bass** accompaniment: this is a very specific type of accompaniment in which the chords are broken up into a distinctive contour pattern. Stereotypical of Classic period pieces (especially for keyboard); otherwise, a relatively rare texture type.

4. Melody with an accompaniment which includes **ornamental tones**: here, neighbor tones are added to the otherwise consonant underlying structure.

5. Melody with **bass-afterbeat** accompaniment: this example shows several different types which might best be characterized as "boom-chick-chick-chick," "boom-chick," and (in the final two measures) "boom-chick-chick." The texture in last two measures is sometimes called melody with a waltz accompaniment.