Web Feature 3.4

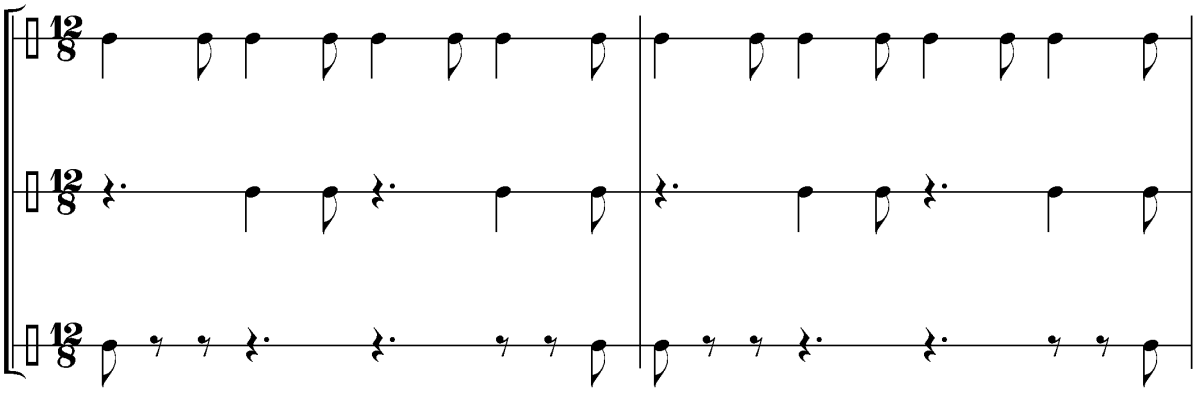
Changing groupings in Peter Gabriel's "The Rhythm of the Heat" (1982)

As we have already seen in our discussion of hemiola, some metric groupings share the same subdivided pulse stream; this makes it possible to regroup the lower-level pulses into higher-level units in more than one way. By doing this, we create a different metric structure, with a different primary pulse stream and an accordingly different experience of tempo. For example, a pulse stream of six pulses per measure can be grouped as three groupings of two pulses (simple triple meter) or as two groupings of three pulses (compound duple meter).

Peter Gabriel's song "The Rhythm of the Heat" begins with a keyboard outlining a lower-level pulse stream of 12 pulses per measure, grouped into four groups of three lower-level pulses.

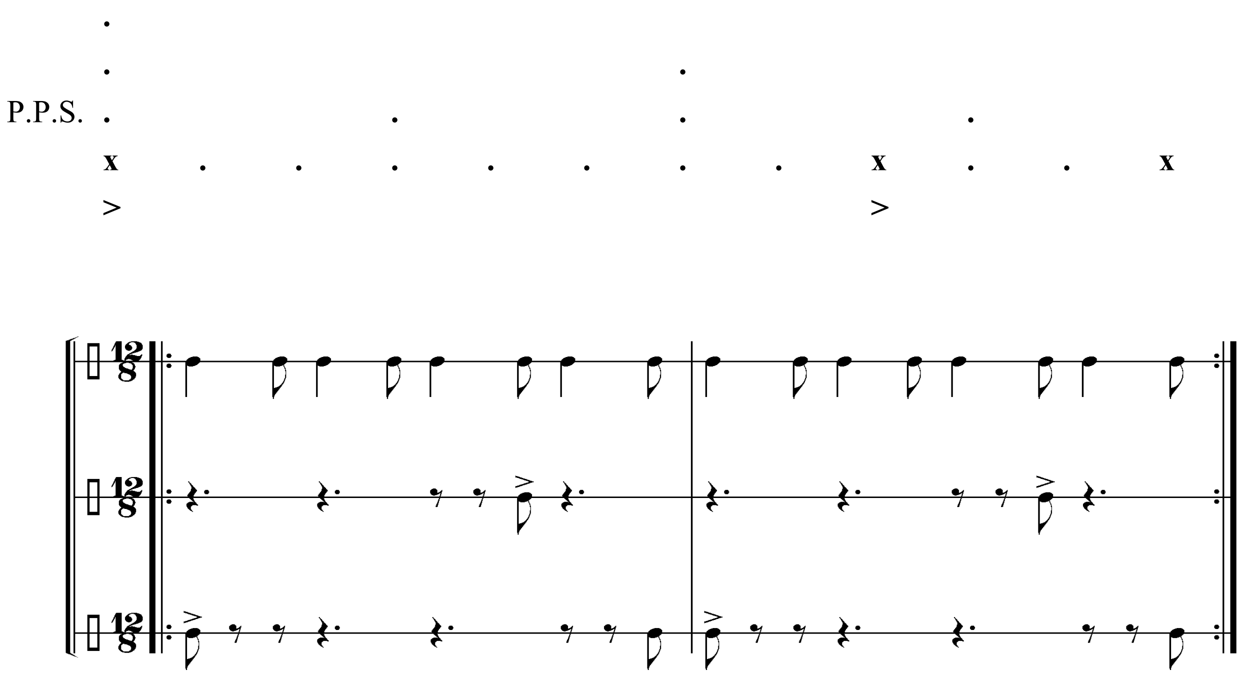
P.P.S.

After the introduction, this measure length is established by patterns in the bass and the selective emphases provided by various percussion instruments, subtly added over the course of the opening verse. Web Example 3.3 shows the composite rhythm that is established by [1:12] into the song, in durational notation.



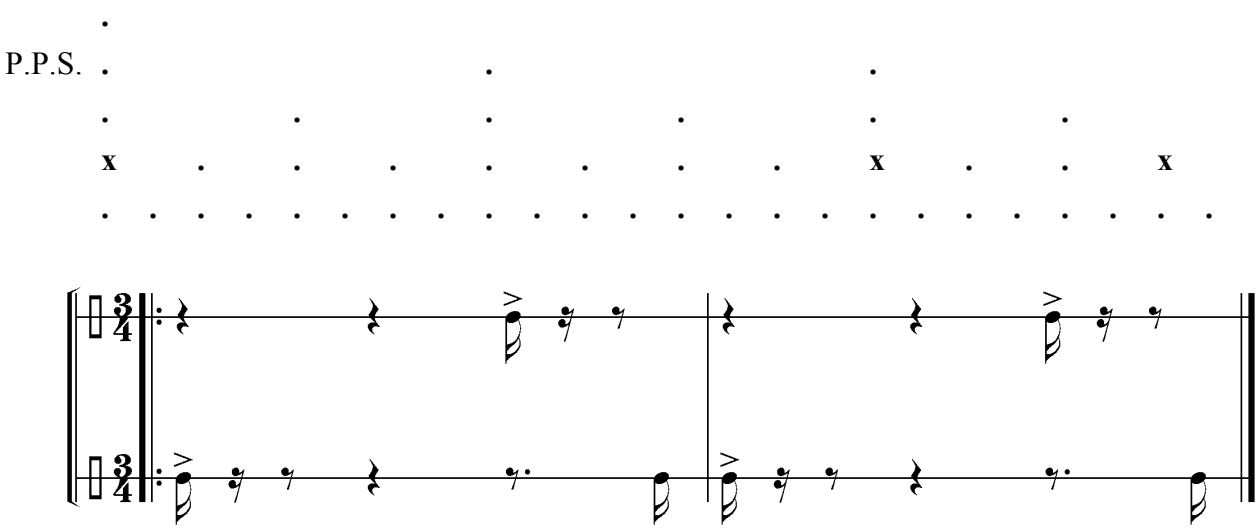
Web Example 3.3. Composite rhythmic ostinato, Peter Gabriel, "The Rhythm of the Heat."

After the first chorus ("the rhythm has my soul"), a dramatic drum pattern enters at [1:52] (Web Example 3.4). Notice that the first attack is syncopated, coming in on the weak pulse just before the fourth beat grouping. The pulse diagram below Web Example 3.4 shows x's where these drum strokes occur. This rhythmic pattern persists for most of the song, finally dying down at about [3:05]. The percussive layers are removed subtly as they were introduced, until all that is left by [3:15] is a quiet pulse on the downbeat and the last (twelfth) pulse in the lower-level pulse stream.



Web Example 3.4. Peter Gabriel, "The Rhythm of the Heat," composite rhythm pattern with added drum riff.

At the song's coda, however, after the final "the rhythm has my soul," the drum pattern enters again at [3:52]. When an African drum ensemble enters in support of this pattern, however, we find something has happened to its metric grouping. Instead of four groups of three lower-level pulses, the metric structure is now three groups of four. As a result, the syncopated attack we experienced in the pattern notated in Web Example 3.4 now comes squarely on the third beat grouping, as shown in Web Example 3.5:



Web Example 3.5. Peter Gabriel, "The Rhythm of the Heat," drum riff recontextualized to $\frac{3}{4}$ meter.

Although the tempo of the primary pulse stream has slowed down as a result of this regrouping, from about 108 to about 82 beats per minute, it appears to have picked up significantly because of the increase in rhythmic density; if the new primary pulse stream is about 82 beats per minute, the lowest-level pulse (which had not been present in the first part of the song) flies by at 656 beats per minute! At the very end the drummers play sextuplets within the primary pulse stream to bring this song to a dramatic close.

What has happened in this change of metric structure is that an equivalent unit of time (the temporal unit articulated in the initial lower-level 12 pulses per measure) comes to represent a new durational value in a new meter. If we were to notate the first meter as $\frac{12}{8}$, the durational value of this pulse would be notated as an eighth note. In the new meter, however, which we might write as $\frac{3}{4}$, the durational value of this pulse—the same slice of time—would now be written as a sixteenth note. The reinterpretation of a given durational value in a new metric structure, *with the experience of a confirmed new tempo,* is called **metric modulation.** In metric modulation, there is a notable proportional shift of tempo that results from the shift of metric organization. It might be regarded as a precisely calibrated acceleration or deceleration, one achieved by the redefinition of a

unit of time from one meter to another. This is a technique that is especially found in twentieth- and twenty-first-century art music, particularly the music of the American composer Elliott Carter (1908–2012). Carter's *Variations for Orchestra* (1954–55) contains some particularly striking examples of metric modulation, especially the fourth (a perpetual slowing down, or *ritardando*) and sixth (a perpetual acceleration, or *accelerando*) variations.