

# Melodic Invention

Many consider melody to be the essence of music, but it took humans generations to develop the rules and techniques we use to build the tunes of today.

By Jon Chappell

**O**F ALL THE things a songwriter and composer can do, writing a memorable melody may be the most prized. You usually can't tell a song just from its opening chords or beat (yes, we know, "We Will Rock You" is an exception), but lots of songs are familiar after just a few notes of the melody. The melody is the one part of a song that's valid without accompaniment. Many consider a song's melody to be its very essence.

Melody is *so* central that many people think that, like the birds singing in the trees, we have melody built into our own biology. But in fact, melody is completely manmade; it's more like the automobile or cell phone than the natural call of the birds. And just like the iPhone, it took a long time to get where we are today.

So in this three-part series, we'll look at the essence of melody, from the earliest sustained grunts of our distant ancestors through the *monophony* (single lines) of the middle ages to the *polyphony* (multiple voices working together) of the Renaissance to the complex mixture of all of the above we listen to today.

## What Is Melody?

The Merriam-Webster dictionary defines melody as "A rhythmic succession of single tones organized as an aesthetic whole."

So right away, we see that for something to be melodic, it has to be organized in some way. What the dictionary leaves out (or assumes that you already know) is that melody involves two things: pitch and rhythm. A beat with no pitch is just that, a beat; vary the pitches of the notes, and you may have a melody. Same goes with pitches: a random collection of C, D, E, and F is meaningless, but organized in the right rhythmic pattern, you have "Happy Birthday."

Our concept of melody dates back to the Greeks. Aristotle (born 384 B.C.) thought that music needed a mathematical basis, using round numbers and no decimals. After all, pitch is really a function of how fast a sound wave cycles in a second—its *frequency*—and that's expressed in numbers. Aristotle was right about some things and wrong about others. The "math" he proposed didn't quite work because not all pitches had "round number" frequencies. It took up until the time of Bach (around 1700—some two thousand years later!) to sort it out.

Our concept of rhythm—which dates back to prehistoric times—was much easier to measure, and we had some cues to make it more meaningful: for example, our own body rhythms like footsteps and heartbeats. But coming up with a system for singing and playing melody eluded humans for many thousands of years. Sounds that changed pitch at random, like birdsongs, weren't really melodious. They couldn't be organized into music we could understand.



### Melody Rules

Gradually, people came up with the idea that a melody had to have two things: a sustained tone, and a difference in pitch level that could be perceived in *musical time*. Musical time means that the notes had to change in a rhythm, and that the rhythm was not too fast (like the birds chirping) or too slow and gradual (like the wind across a cave opening).

The trick was to come up with a system of *intervals* (the musical distance between two pitches) that people found pleasing and repeatable. We take it for granted now because we've used a 12-note scale for hundreds of years, but the actual distance in pitch (and frequency) between, say, C and D isn't natural; it had to be defined (based on those mathematical formulas that so intrigued Aristotle). The first interval people noticed was the octave because when a man and a woman sang the same pitch, C, the woman's voice sounded higher—it was *double* the frequency. We eventually mastered other intervals, like the second (two half steps), and the minor 3rd (a step and a half). From there, we stumbled slowly into building a scale.

Since the scale had to be invented, people had different ideas for going about it, even when they agreed on the octave and a couple of other intervals. Aristotle came up with his system, but it wasn't perfect. In fact, it wasn't until the mid-1700s, about the time of Bach's heyday, that the best solution (which wasn't perfect either, but actually a compromise) was reached. The tempered scale we commonly use today means that instruments can play in tune, and vocalists can sing in tune with the instruments that accompany them.

But the Western tempered scale is only one way to organize pitches. Different cultures isolated from each other came up with different systems. The "do re me" that you know so well is not the system used by Native Americans, African Bushmen, the Polynesians in the Pacific, and other cultures. You can hear variations from our Western scale in East Indian music, which uses many more notes between the octaves, including notes Western Europeans would have considered "wrong." Merely knowing a scale doesn't give you mastery of melody, but it does set a framework from which to build. But even with the

scale providing the building blocks, early melody was more like chanting—sustained vocalizing that turned into humming. This was used in all sorts of daily life, from expressing joy and triumph to lulling babies to sleep (that's why they call it a "lullaby"). Then a big discovery was made: You could simultaneously say words while producing these sustained tones. Melody and words could be performed simultaneously! Chanting developed into *singing*. Soon, people invented instruments that could match the intervals that their voices were already singing.

### The Parts of a Melody

The smallest unit of melody is a *motif*—which can be just two notes. Motifs make up *phrases*, and phrases put together form complete melodies. There's no set length for a melody, but it should be self-contained—having a sense of completeness with a beginning, middle, and end. A melody should repeat, so that the listener can "learn" the song, and identify with the repeated parts. When you repeat a melody, it's often a good idea to change it ever so slightly, to keep things from getting too predictable. For example, in the song "Typical" by Mute Math, the first phrase of each verse repeats four times (with different lyrics), but using just a slightly different ending. And it's made up of just eighth notes and quarter notes.

Melodies are said to have a *contour*—the outline or edge of the melodic line, as if it were plotted on a graph. For example, if you played a one-octave descending and ascending scale in 16th notes (say, from middle C down to the second space in the bass clef and back up again to middle C), the contour would look like a "V." Contour offers clues about the music's mood and dramatic intent.

A melody can be fast, slow, or any combination of fast and slow rhythms. Some melodies move so fast we think of them in terms of their rhythms more than the pitches of the individual notes (Rimsky-Korsakov's "Flight of the Bumble Bee" comes to mind).

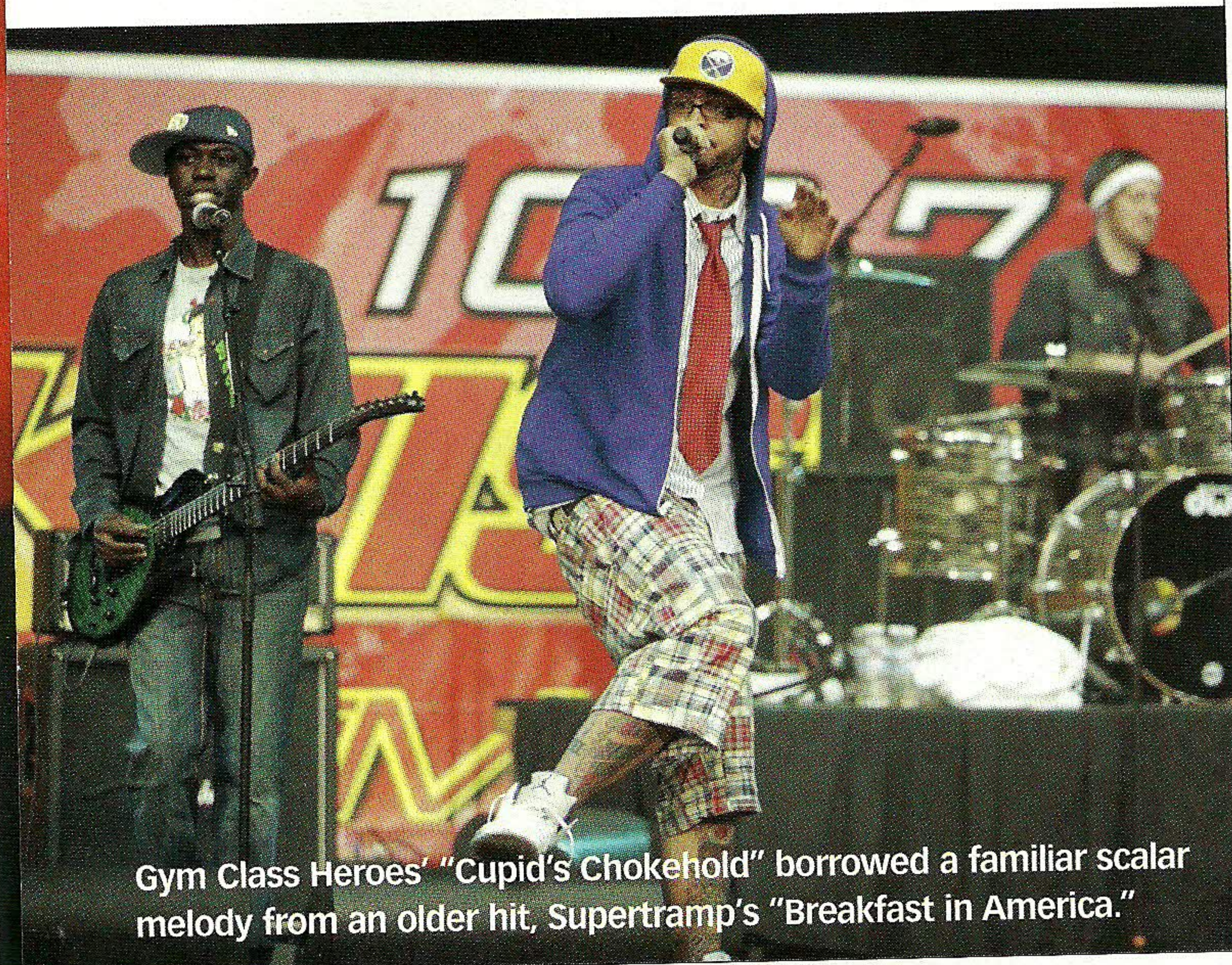
Okay, so now that we have an idea of what a melody is, here's the real money question: What makes a *great* melody? This is perhaps the most difficult question of all time, because if we really knew the answer, someone would bottle it and sell it, like an energy drink. But we know a great melody when we hear one, and we can say that all great melodies share certain qualities.

Most important, a melody should be memorable—you must be able to recognize it, remember it, and reproduce it yourself. For example, "Happy Birthday" is a song that nobody needs to be taught; it seems like you've always known it. But the truth is, you did have to learn it, even if only once. Interestingly, melodies seem to be more memorable than words. For instance, you could hum "Happy Birthday" without the words, and people would automatically get what you meant. Your melodic memory is the elephant of your brain: It never forgets.

Many popular songs borrow from familiar melodies. Check out the beginning of Gym Class Heroes' "Cupid's Chokehold," which starts with a scalar run—borrowed from an old song by the band Supertramp.

### From Forgettable to Famous

If we were able to go back in time to check out the songs of, say, 500 A.D., the melodies we'd hear would sound really weird to



Gym Class Heroes' "Cupid's Chokehold" borrowed a familiar scalar melody from an older hit, Supertramp's "Breakfast in America."



our modern ears. Medieval musicians had no method for writing down their melodies, but if we used our “modern” system of notation, a typical early melody might look like Ex. 1. This could hardly be called “beautiful” by today’s standards, but making people feel good wasn’t the intent. This slow-moving chant is set to the lyric “hmm,” to give it its proper vibe. It’s not very interesting, but that’s what people were hearing in the abbeys and monasteries in the middle ages.

So let’s jump ahead a few centuries and consider the next case, which is Ex. 2. It still uses quarter notes, half notes, and whole notes, like Ex. 1, but did you know that this is considered by many to be one of the world’s most beautiful melodies? It’s certainly one of the best known of all time, and it has some very interesting patterns to it. For example, note the ways that the first four bars are very similar to the second four bars:

- ▶ Bars 1 and 5: each starts with half-note skips.
- ▶ The second bar of each phrase (bar 2 and bar 6) has exactly the same contour, or shape. It’s just that bar 2 starts on a high D and bar 6 starts on a G.
- ▶ Both end on a whole note (a fifth apart, which is exactly the same interval as bars 2 and 5).

Bars 2, 6, and 7 all have the exact same contour; they just start on different notes. To look at all this repetition and “balance,” you might think this melody was as boring and nondescript as the melody in Ex. 1. But no: Ex. 2 is a classic.

Example 3 proves that a melody doesn’t have to be complex to be immortal. This is a simple song, one that could be played by a beginning music student after only a couple of lessons. It’s a folk melody for the African-American spiritual “Goin’ Home.” But Antonin Dvorák (di-VOR-zhak)—a classical-music composer on the level of Beethoven and Brahms—was so struck by it that he based one of his symphonies around it. Think about this: Here was a guy who wrote the most beautiful music of his day (and of all time, history would prove), and he said, “I can’t improve upon *this!* I’m just going to steal it and put it in my *Symphony No. 9 in E Minor*.” Later, people called this work his “New World Symphony,” because he got his melodic ideas from the “new world”—America. See what the power of melody can do?

Yet not all immortal melodies are simple. Exercise 4, which shows how sophisticated the expression of melody had become by the 19th Century. This is the second statement of Chopin’s theme from the *Nocturne in E<sub>b</sub>*—one of the Romantic era’s most beautiful melodies. This phrase is a variation on the simpler melody, which is made up of eighth notes and quarter notes. Chopin wrote in notation the way jazz singer Diana Krall or pop diva Kelly Clarkson might improvise a melody. But by writing it, Chopin had complete control over the little flourishes and embellishments.

A great melody can stand on its own, but it doesn’t have to. Composers often weave multiple melodies together to produce a variety of forms, including rounds, canons, fugues, counterpoint, and polyphony—all technical terms for melodic mechanisms. We’ll be looking at these techniques in the next two installments of this series. **T**

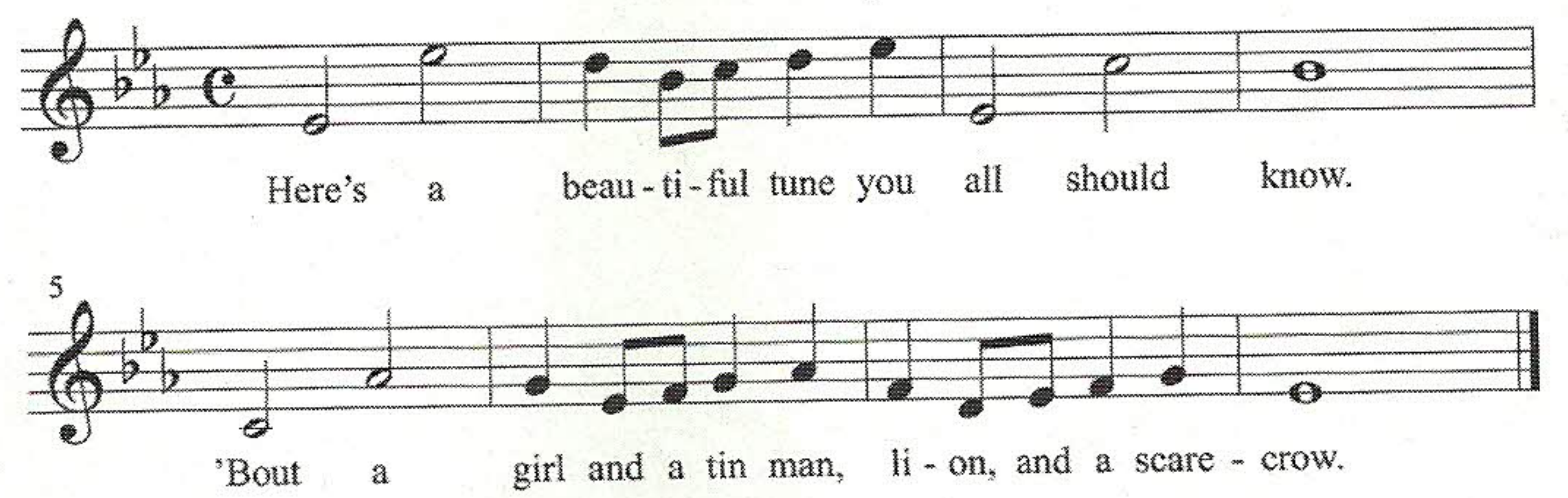
In Tune and Notion software ([notionmusic.com](http://notionmusic.com)) are teaming up to make our online music examples more student- and teacher-friendly than ever before! Log on to [IntuneMonthly.com](http://IntuneMonthly.com) and click InTuneInteractive to see and hear the music examples shown here with both basic piano and with (where appropriate) full orchestral arrangements. As the cursor moves through the score, you’ll see annotation identifying figures, motifs, phrases, and more. Each month, we’ll be adding more lessons and features.

### Example 1



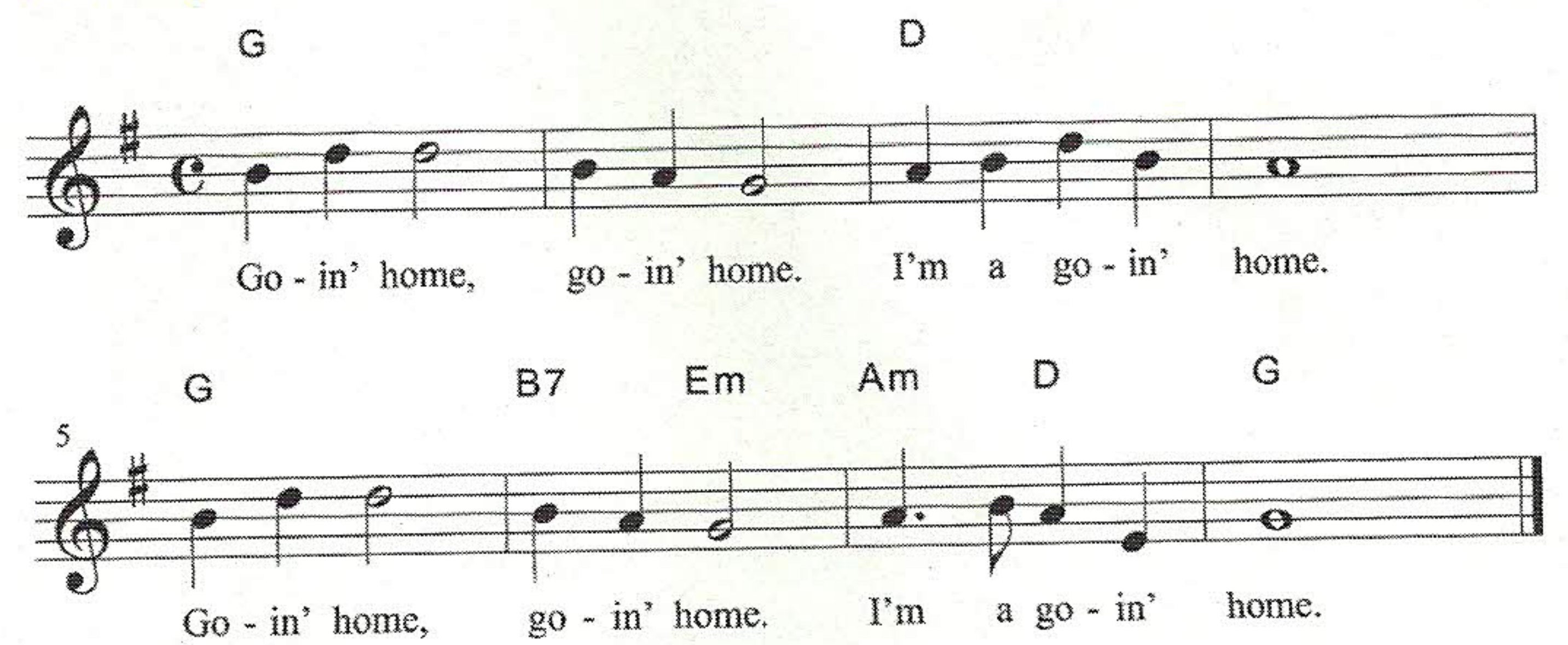
This chant-like melody sounds weird and haunting to our modern ears—especially when sung by monks.

### Example 2



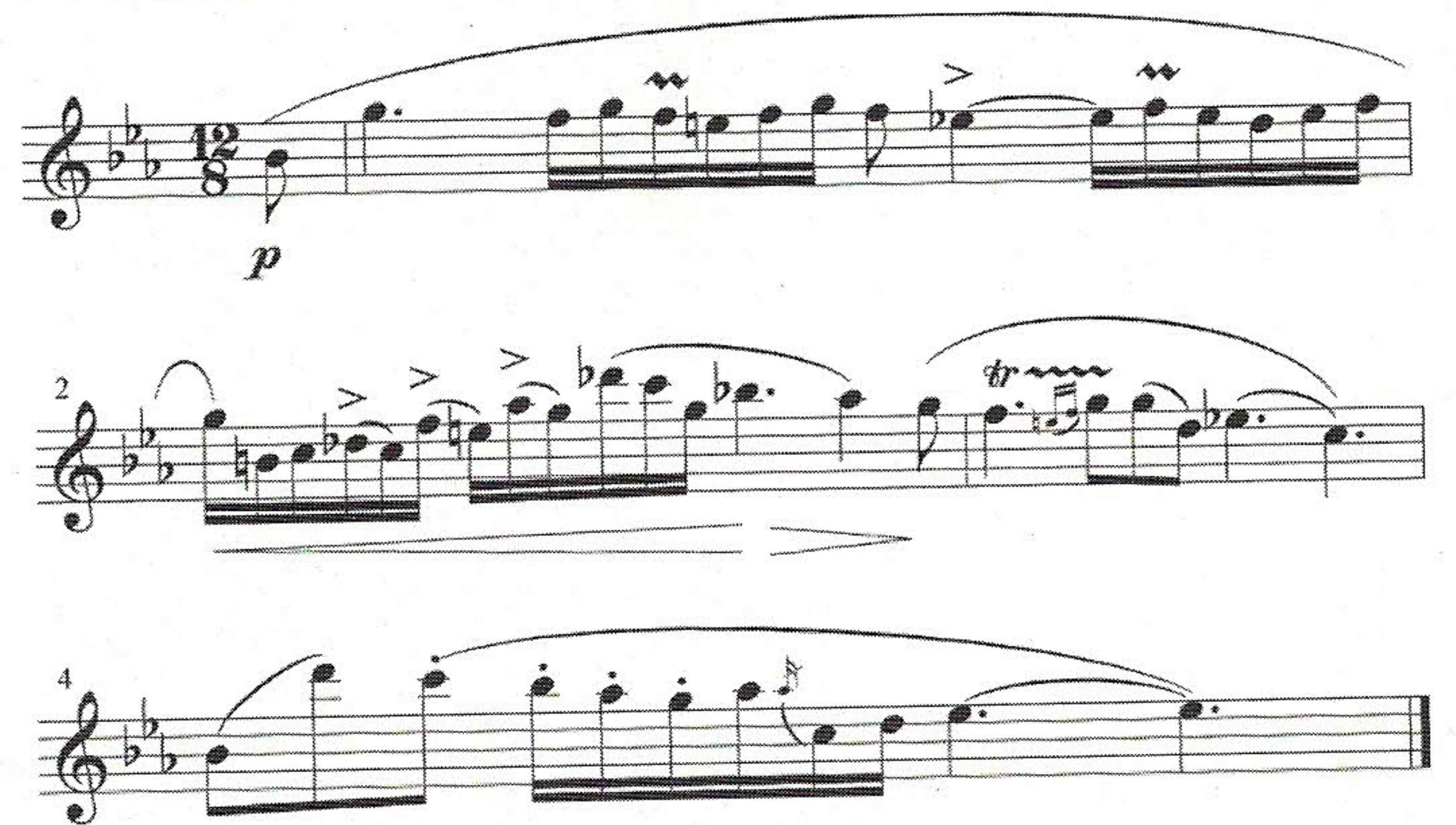
You probably know this one. It features an interesting sequence of repeated patterns and ideas.

### Example 3



A simple song with an immortal melody—one that inspired a symphony.

### Example 4



Chopin’s *Nocturne in E<sub>b</sub>* is a complex variation on the simple melody above.