As In Their Own Words from Pseudo-Odo of Cluny showed, around 1000 c.e. musicians had hit upon a system of repeating seven letters within the Latin alphabet (a, b, c, d, e, f, g) as a way to identify pitch names. Only seven letter names were needed because all pitches coming thereafter were simply octave duplications. But there was a problem inherent in this approach: owing to the way the ancient Greeks had set forth the diatonic scale, the intervallic distances between the pitches in the diatonic scale were not same. The interval between e and f, and between b and c, was only a half step, not a whole step, as everywhere else. When confronting an unknown chant, untrained monks and nuns had difficulty knowing where to sing a half step and where a whole step—they couldn’t sight-read with ease. To solve this problem (from c991 until after 1033) the Italian monk, Guido of Arezzo, devised a system of reducing the number of pitches within each scalar unit from seven to six and in this way eliminating one of the two half steps. Guido then placed the remaining half step in the middle of a hexachord (six-interval aggregate) in the pattern WWWHWW; allowed the pattern to begin on pitches G, C, and F and their octaves; and gave each of the six pitches of the hexachord a name, not “a,” “b,” and so on as Pseudo-Odo had done, but syllables that he extracted from the first words of successive lines of a Latin hymn Ut queant laxis. While all of this sounds very complicated, it is explained in straightforward fashion in Chapter 4, under “Hexachords.” In the course of time Guido’s syllable “Ut” was replaced by “Do,” and “Ti” was inserted when the hexachordal system gradually reverted to an octave system during the seventeenth and eighteenth centuries. Yet even today in many music schools and conservatories around the world we still practice sight-singing by “sol fa-ing” or using a system of “solfege.” Perhaps the most important change unleashed by Guido’s system, as this letter shows, is that now students would no longer learn all music orally through continuous repetition, but visually: sight-reading began to replace rote memory.

To Brother Michael from Guido, who has suffered many ups and downs. . . . Inspired by God’s charity, I, the most unworthy of his creatures, yet with the encouragement and solicitation of God himself, send as quickly as possible to you and to one and all a divine gift. I do this so that all future generations will pray for the remission of my sins and my eternal salvation, and yours, and for all our assistants, when they are able to learn ecclesiastical chants with the greatest ease, the very ones I and everyone before me learned with the greatest difficulty.

For if it happens that those singing [and praying] for their teachers, even after a decade of study, still have difficulty with the process, what do you think they will do for us and our assistants if after the space of a year, or two years at most, we can turn out a perfect singer? . . .

Allow me to tell you how this came to pass. Supreme Pontiff John [XIX, 1024–1033], when he heard about the fame of our school and how boys could learn chants that they had never heard before by means of our antiphoner [Guido’s chant book for the offices in which he had placed color-coded horizontal lines to identify intervallic content: the first staff], was most intrigued and sent three emissaries to bring me to him. Thus I went to Rome with revered abbot Dom Grunvald and Dom Peter of Arezzo, provost of the canons of our church, among the most learned men of our time. The pontiff was very happy that I had come, and we talked about many and diverse
things. He looked through our antiphoner at length as if it were a miracle of nature, and perused the rules that we had prefixed to it. He stayed with it until he had learned on his own a verse that he had never heard before, and what he had heard, but couldn’t believe, from others, he found for himself to be true. . . .

In order to pick out a completely new chant, blessed brother, this is the first rule: you should play on a monochord the letter names contained in the neumes [groups of notes], and thus hear it just as if a master had sung it to you. But this approach is puerile, and good [only for] beginners, but the worst for those who are taking the process seriously. For I have seen many of the sharpest minds, not only in Italy, but also in France and Germany, and even in Greece, try this approach but not become what I would call musicians, or even singers, unable to match the ability of our choirboys. We should not therefore always approach a new chant following the tones of a human voice or those of some instrument, as if a blind person who must always be lead, and so have to always commit to memory all the rises and falls and diverse particularities of the melody.

Instead, you should have a method that is tried and true, and that can be taught to you by someone without benefit of written materials but in discussions employing our method. For after I have begun to teach this method to choirboys, after only three days they are able easily to sing completely unknown chants, a process that requires many weeks using other methods.

And in order that you can have firmly in your memory a pitch or a neune [collection of conjoined notes], and make use of this information wherever you wish, no matter what the chant, be it known or unknown to you, and thereby quickly and with confidence articulate it, you should relate that pitch or neume to those of some well-known melody that you have committed to memory, which begins with that same pitch. Here, for example, is the melody that I teach our boys from beginning to end. [Guido then gives the hymn tune Ut queant laxis]

\[
\begin{align*}
C & \quad D & \quad F & \quad DED & \quad D & \quad C & \quad D & \quad E & \quad E \\
C & \quad D & \quad F & \quad D & \quad E & \quad F & \quad G & \quad E & \quad D & \quad E \\
F & \quad G & \quad A & \quad G & \quad F & \quad D & \quad G & \quad A & \quad G & \quad F & \quad A & \quad A & \quad G & \quad F & \quad E & \quad D & \quad C & \quad E & \quad D
\end{align*}
\]

Thus don’t you see that the start of the successive phrases of this melody each begins with a different pitch. And so anyone who has memorized these particular steps can execute any comparable passage with confidence, and wherever you see these six pitches you will be able to sing them easily, recognizing their [intervallic] properties. Thus when you hear some neume that is not written down, pay special attention to those particular pitches at the end of the phrase so that the last pitch of the neume and the first pitch of your pattern are the same [This sentence is confusing, but it seems to suggest that you pay special attention to the ends of the phrase and the next interval of the model, in this case Ut queant laxis so that you come to recognize instantly any particular interval, just as we recognize a fourth when we hear the beginning of “Here comes the bride.”]. . . . You should be certain about this, because the pitch on which the neume ends is relevant in the model to a beginning pitch. And so you should pay special to this so that when you begin to sing some unknown written chant that you finish properly each neume in order that you can join it at the correct interval to the beginning of the next one. And in this way you will be able, upon hearing a new melody, or one that is not written down, to write it down quickly. In this way these rules will greatly assist you. . . .

Source: Translated from the original Latin of Epistola de ignoto cantu, found online at THESAURUS MUSICARUM LATINARUM, http://www.chmrl.indiana.edu/ml/start.html.