I can't seem to get my guitar to sound in tune. I realize that tempered tuning is a compromise for all keys and that a guitar can't be truly "in tune" everywhere on the neck, but is there a tuning method that gives the best compromise?

Presuming that the frets on your guitar are properly spaced, the first thing to check is the condition of each string. Play a harmonic on the 12th fret and then finger the same fret. (Never use vibrato when tuning.) If the pitches are identical, the string is probably even in thickness and consistent in pitch. If the pitches differ, the string could be the culprit, or your guitar's intonation might need adjustment.

Next, tune the high E string to a tuning fork. (I use either A or E above the staff.) To keep the string from slipping, always tune up from a lower pitch to the desired pitch when making the final adjustment. Play a fifth-fret harmonic on the B string and tune it to the seventh-fret harmonic of the E string. Or finger the fifth fret on the B string and match it with the open E. A third check is to play the 12th-fret harmonic on the second string and match it with the seventh position on the first string.

Once the first two strings are in tune, finger the fourth fret of the G string and tune it to the open B. Then play a 12th-fret harmonic on the third string to be sure it is in tune with the third fret on the first string.

Tune the A string next by playing a harmonic on the seventh fret and matching it with the open E. Check the A string by comparing a harmonic on the 12th fret with the second fret of the G string.

Adjust the D string until its seventh-fret harmonic is identical to the fifth-fret harmonic of the A string. Check that the fifth-fret harmonic on D is in tune with the seventh-fret harmonic on G. Check again by playing a seventh-fret harmonic on D while fingering the fifth fret of the first string. Finally, check the harmonic on the 12th fret of D against the third fret of the B string.

Tune the low E by matching its fifth-fret harmonic with the open first string. Check that the open B is still in tune by comparing it to the seventh-fret harmonic on the low E string. Also compare the fifth-fret harmonic on the low E string to the seventh-fret harmonic on the A string, and the 12th-fret harmonic on the low E string to the second fret of the fourth string.

The last step is to check tuning as it relates to the piece you are about to play. If the piece is tonal, strum the tonic chord. Make any final adjustments necessary to be sure the chord is in tune. In pieces that link unison pitches on different strings, check the tuning of each unison. For example, make sure that all the E's match in the opening of Bruce MacCombie's *Nightshade Rounds,* or that the three E's in the arpeggio section of Etude #11 by Villa-Lobos are in tune. Conspicuous octaves should also be in tune, such as the octave E's that precede that arpeggio section.

If you are tuning on stage, speed and subtlety are essential. Tune as quickly and quietly as possible so the audience doesn't have to suffer through it. For minor adjustments,

you can streamline the above to just the 12th-fret harmonic/adjacent string checks, followed by the piece excerpt. The speediest way to change a tuning is first to memorize the appropriate number of turns each peg requires in order to land at the new pitch. If you are changing to a lower pitch, tune down at least a half step lower than necessary, then tune up to the pitch you want. If you are going to a higher pitch, tune to the pitch, pull on the string firmly with your right hand to stretch it, and tune up once again. If you are using only a capo to change pitches, be sure to check the tuning of each string once the capo is in place since it often slightly alters the interval relationship between strings. If a string is only slightly sharp or flat, you can often save time by not using the machine head: pull gently to loosen a string, or press behind the nut to tighten it.

How should I hold the guitar so that I feel comfortable playing all the way up the neck?

In the basic playing position (which shouldn't change except when you encounter large left-hand stretches or special effects in the right hand), the guitar is supported without any muscular tension. The left foot lies flat on a footstool, and the curve of the guitar rests on the left thigh (or on a cushion or frame if you use one instead of a stool). Your right arm provides the counterweight.

To find its ideal position, allow your right arm to hang freely at your side. Raise it slowly and rest your forearm, just before the elbow, on the edge of the guitar's upper curve. Let your hand fall naturally above the strings, keeping the wrist slightly arched. To find your ideal left-arm position, drop your arm and let it dangle freely. Then move the forearm upward and grasp the neck. Your elbow should hang downward, guided only by the force of gravity. Except when fingering awkward stretches, maintain this natural position of the elbow.

When playing below the 11th fret, it is generally best to keep your back straight while leaning forward slightly. Your shoulders should also be straight, forming a line both perpendicular to the spine and parallel to the hips. Keep your shoulders relaxed and resting in the natural position created by gravity. Though rhythmic shoulder movements are occasionally appropriate—such as while playing syncopated Latin American music—do not otherwise raise your shoulders, and never in gestures that would produce tension. Keep your neck relaxed and in alignment with your spine. Though it is fine to move your neck horizontally (left and right), avoid bending it downward.

When playing above the tenth fret, it won't work to keep your back and shoulders straight. If you reach that high on the neck, your forearm tugs at your wrist, and finger motion is restricted. Your hand feels terrible. When you move from approximately the 11th fret on to higher positions, the solution is to lower your left shoulder gradually while increasing the forward lean. Your hand should now feel relaxed and compliant. When returning from a higher position back to the 11th fret, gradually straighten your back until your body is in alignment once again.

Should a left-handed person play guitar left-handed?

I don't believe there is only one correct way to play if you are left-handed. I have seen some left-handed people play right-handed with no trouble, and some who had played right-handed for an extended time switch to left-handed because they found it easier. Before ordering a specially built guitar in which the inside bracing is altered to accommodate the reversed string order, experiment with playing right-handed.

To speed up this decision-making process, you could practice for an equal amount of time each day the same exercises and pieces right-handed on your regular guitar, and then left-handed on a second guitar whose strings have been reversed. Within a relatively short period of time, it should become clear which position is more comfortable for you.

At what age do you think a child can start learning—and enjoying—the guitar, and what should I look for in an instrument for a child?

Proponents of the Suzuki method will say that a child can begin to learn the piano or a stringed instrument as early as age three or four. Because Suzuki methods have now been developed for the guitar, a kid *can* start studying soon after shedding diapers. Young children learn by rote for the first few years, and with constant parental supervision. Is this desirable? It depends on the personalities of the child and the parent involved. Though such close-knit interaction may work well in a country like Japan where the Suzuki method was first developed, it often presents problems and power struggles in our more independence-oriented culture.

If the parent doesn't want to get involved in practice sessions and lessons, then she or he should wait until the child is at least six or seven (I started at age nine). Whether using Suzuki materials or not, it helps to have an excellent recording the child can listen to of all the musical examples that she or he encounters.

Whatever the parent and child decide, they should be sure to choose a good teacher. If a kid learns bad habits at a young age, it is very difficult and frustrating to unlearn those habits later on.

As for the instrument, a child under the age of 11 or 12 will require an undersized instrument. The teacher should advise the parent which of several ready-made sizes would be appropriate, based on the child's finger and arm length.

Do you think beginning guitarists should learn to sight-read single notes before learning any chords?

It depends upon your individual goals. If you want to study folk guitar, start by learning chords. If you want to concentrate on classical guitar, it is best to learn individual notes first for a variety of reasons. You will be able to read more quickly, and you will also have the opportunity to develop good right- and left-hand techniques more conscientiously. It is easier to concentrate on both a good left-hand position and a proper

free and rest stroke form in the right hand when you are learning only one note at a time, rather than a cluster of notes.

Concentrating on single notes also allows you to practice the alternation of right-hand fingers, a technique essential for developing finger independence. This sort of practice is conducive to learning rhythmic notations as well.

What qualities should I look for in a guitar teacher, and how should I go about finding one?

Since there are so many styles of guitar playing, it is important to find a teacher whose expertise reflects the style you wish to study (classical, jazz, folk, bluegrass, flamenco, etc.). If you are seeking classical or jazz instruction, phone the music department of your local university or conservatory to see if there is a guitar department. Speak to the department head and inquire about private lessons. The instructor should be able to evaluate your needs and make other recommendations, if necessary. If there is a local guitar society, the president and board members would also be good sources of information about local instructors.

There are various ways to evaluate the musical and technical potential of a teacher:

Inquire about the instructor's background. What degrees did she or he receive and with whom? Past instructors are potential indicators about a teacher's outlook and approach.

Listen to recordings or attend a performance. Do you relate to the style of playing? Does the playing reflect a thorough and disciplined knowledge of technique and musical styles?

Attend a master class. Talk to students to get an idea of their experiences with the instructor. This is important because not all fine performers are good teachers.

Once you have a candidate, arrange a lesson. Is the teacher attentive and interested, or bored and distracted? A teacher who is enthusiastic about music and problem solving will inspire and encourage you in your quest to grow. Seek out a teacher who is patient, articulate, communicative, and creative. If you ask questions, the answers should be thoughtful and illuminating, rather than dogmatic or superficial. A teacher should be willing to explain in depth the mechanics of a musical or technical challenge, the "whys" and "hows" of problem solving. After all, only through genuine understanding can you assimilate and apply new ideas and knowledge.

Discuss your goals and aspirations. Are you both in agreement about expectations and workload, frequency of lessons, cost, etc.? If you wish to focus on specific repertoire (such as contemporary, Baroque, or chamber music), is the instructor supportive, and does she or he have the necessary background? In the end, you must have confidence in

the teacher's knowledge, integrity, ability to communicate, genuine desire to help you grow, and respect for your individuality.

What do you think is the proper balance between learning from a teacher and learning from books and methods?

Because hand position and tone production are so important and challenging when first learning classical guitar, one must start with a good teacher, no matter how explicit books and methods may be. If you intend to pursue guitar as a hobby, a few months of weekly lessons may suffice to set you off on the right track, with occasional checks thereafter as needed. Since it is easy for bad habits to appear unwittingly, it would be best to consult a teacher monthly or bimonthly and whenever addressing new techniques. A teacher can also provide motivation, encouragement, and discipline, making learning not only faster but more enjoyable.

If your goals are professional or you are striving for a genuinely high level of musical and technical sophistication, weekly lessons for many years are the norm.

At present I'm working from four guitar method books that cover different styles: classical, bluegrass, fingerstyle, and standard flatpicking. Do you think it's wise to take this broad approach, or would I be better off narrowing my focus and concentrating on one style?

If you have the interest, time, dedication, and energy to devote yourself to more than one style, I see no reason to limit your approach. It will also give you the opportunity to explore a variety of styles to see if one or two eventually inspire you more than others. You can always choose to narrow your focus later.

Instead of shuttling about between four teachers, however, try to find one very versatile instructor, or perhaps one for classical and one for the other styles. You'll need to make sure that learning one style doesn't cause you to distort hand position in another. For example, if you use your left-hand thumb to finger notes in bluegrass, you'll need to be extra conscientious when playing classical not to let your thumb bend inward or extend beyond the neck. Maintain rounded left-hand fingers when playing classical, even if other styles call for more extension. If you practice with a pick, you'll have to guard against a sloping right hand when playing classical, or against the tendency for the right-hand thumb to lodge itself behind the index finger instead of being extended off to the left.

Many of the jazz, bluegrass, fingerstyle, and even rock professionals I've met studied classical guitar at one time in order to improve their technique. And classical players who know how to improvise can use that skill to advantage in their approaches to programming and composition.

I am seeking a school, college, or university that has a musical program geared specifically toward the guitar, rather than the keyboard. Any suggestions?

When choosing a school, your top criterion should be the quality of the guitar instructor. Researching this can take you far and wide, since the College Board Music Service currently lists more than 1,000 colleges and conservatories in North America that offer programs in classical guitar (also see the list on page 77). Other than the Berklee school for jazz studies in Boston, I am not familiar with any major music programs whose specific focus is the guitar. That is actually fortunate, because one of the biggest problems of classical guitar study is that it is often insular, separated from the larger world of music. Such ghettoized programs breed players with little experience in chamber music and sparse knowledge of symphonic, vocal, and general instrumental repertoire. Familiarity with music of other instruments helps to inspire and inform a guitarist's playing.

It's also true, however, that the keyboard often plays too large and intrusive a role in guitar programs. For instance, many programs require that all music majors, including guitarists, achieve a minimum proficiency on the keyboard in order to graduate. This requirement makes sense for theory, composition, and conducting students, and for musicians whose instruments are not harmonically self-sufficient (voice, strings, winds, brass). But for guitarists, a keyboard requirement often means needless and dangerous torture. Long nails on the right hand force a guitarist to compromise hand position at the piano. Playing a few chords and practicing simple ear-training exercises is not a problem, but gearing up to play fast scales and Bach inventions requires hours of practice. With a distorted hand position, all this work can lead to serious injury, such as tendinitis.

Because the guitar is a richly harmonic instrument, it makes more sense to skip the heavy-duty keyboard work and incorporate harmonic studies onto the fingerboard; that's the approach I took in designing the guitar program at Juilliard, which does not require any keyboard proficiency or study. Teachers should have the knowledge and ability to apply principles of theory and harmony to their teaching of guitar repertoire. Too often, theory remains an abstraction. When taught with understanding and insight in actual music, however, theory illuminates structure, fingering, and interpretation.