

This is a copy of my original class notes, which you can find [here](#). This copy will generally not be updated other than when I'm teaching Colegio Iberia. That shouldn't be much of a problem but check the link for the latest updates.

My Ukulele is a Guitar

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This is inspired by Lord Drake Oranwood's delightful class "My Guitar's Persona is a Lute," which I highly recommend. It is available on YouTube.

Introduction

While the six-string guitar is a Nineteenth Century invention, acquiring steel strings in the 20th Century, the first instruments to be called "Guitar" were more modest, 4-course instruments, the poor relations of the six-course *Vihuela*. Played by, "...every stable-boy and manservant..." and associated with roving bands of thieves, for whom the guitar was a key element in their chicanery.

Definitions

Carved Body	The bodies of the earliest necked instruments were carved from a solid block of wood. Basswood is a common choice for reproduction instruments.
Constructed Body	Later necked instruments were built from multiple pieces of wood. "Bowl back" like a lute where the back itself forms the sides, and "Flat back" like a guitar with separate side pieces. are two common varieties. Examples of both survive from Period.
Course	One or more strings intended to be played as a unit. Guitars, vihuelas, and lutes have either single or double courses. On single-course instruments like violins or Modern guitars, "string" is used interchangeably with "course," though this is imprecise.
Course Number	Courses are numbered bottom-to-top on the instrument. This means that the lowest-numbered course is typically the highest pitch. Yes, it's confusing.
Fret	Both the act of touching a string to the fingerboard to set the pitch, and cross-pieces, whether wired or tied, that fix the fretted notes to a particular pitch.
Gauge	The diameter of a string, usually expressed as decimal of inches or millimeters. For a given material, length, and tension, a larger gauge

	string will sound a lower pitch.
Lute	From “ <i>al oud</i> ”, literally “The oud.” The lute is similar enough to the Vihuela that music for one can be played on the other. The earliest Lutes had eleven strings in six courses. Lutes are characterized by rounded backs and short, wide necks. Late Period lute necks grew much wider as additional bass courses were added..
Linear Tuning	Any string tuning where the pitch of the courses plucked in succession increases across the courses when plucked across the strings. Contrast with Reentrant Tuning. A modern guitar is tuned linear.
Oud	Predecessor to the Lute and the Vihuela. At the time when its history diverges it also had seven courses of strings, though its tuning wasn’t Standardized in the Western sense.
Reentrant Tuning	Any tuning where the increasing pitch pattern is interrupted by an octave drop. Normal ukulele tuning is reentrant on the 4th string. 5-string banjo is reentrant on the 5th string. Venezuelan Cuatro is reentrant on the first string.
Scale Length	The length from the bridge, where strings are attached to the soundboard, to the nut, where the strings are secured at the top of the neck.
String/Course Number	Strings and Courses are numbered from the “physical bottom” which means the lowest pitch strings, being uppermost, have the highest number. This confuses everyone at first, but you’ll get used to it.
Tablature	The earliest guitar, lute, vihuela, and even some wind instrument music was written in an alternative notation called “Tablature,” which rather than indicating just pitch and duration, also indicates the string that is to be played. Historically several systems have been used.
Vihuela	Cousin to the Lute, with eleven strings in six courses. The Vihuela is characterized by a flat back and straight sides, though ribbed examples exist in iconography.
Vihuela de Arco	Similarly named fretted instrument, designed to be played with a bow. Usually “de Arco” is specified, but be careful!
Vihuela del Mano	Normally “del mano” is assumed. This is the Vihuela that is plucked or strummed.
Vihuela de Peñola	Vihuela designed to be played with a plectrum.

What’s That Instrument?

Instrument names are confusing and varied. “Vihuela” might refer to “Vihuela del Mano” built to be played with the fingers, “Vihuela de Arco,” played with a bow, and Vihuela de Peñola, played

with a plectrum. Usually an unmodified “Vihuela” refers to the hand-plucked instrument, but a certain amount of uncertainty remains. The Vihuela is called “Viola” in Italian, with the same three variations, but which also refers to the Modern Viola.

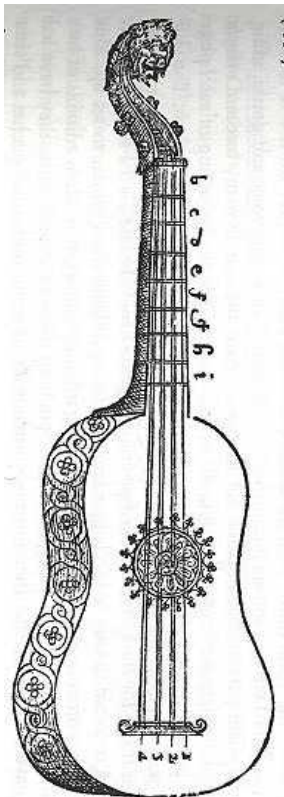
An English “Guitar” is a very different instrument, what we would now typically refer to as a “Gittern” or “Cittern.” A Modern Portuguese guitar is yet another distinct instrument with its own tuning and playing technique.

Modern builders of reproduction instruments will occasionally identify an instrument as a Gittern when it’s actually a ukulele or guitar in a decorated case. There’s nothing wrong with these instruments save for the fact that a higher quality instrument, of conventional shape, could usually be purchased for the same price. If you want a Lute, save for a Lute. A “lute-shaped guitar” is probably overpriced given the quality of the instrument.

Quite a lot of Period music for guitar, vihuela, and lute has been transcribed for Modern guitar, both steel and Nylon string versions. You could spend a lifetime just learning that repertoire.

Wait, Weren’t we Talking About Guitars?

Up until our times [the vihuela] was very valued and there were many excellent musicians who played it. However, since guitars were invented, there are very few people who dedicate themselves to studying it. It is a great loss, because every bit of notated music used to be set upon the vihuela. Now the guitar is no more than a cowbell, so easy to play, especially in the strumming way, that there isn’t a stable boy who isn’t a guitarist—Sebastián de Covarrubia, Madrid 1611.



The guitar and the vihuela both arose on the Iberian peninsula. It is conjectured that the distinctive flat-back and figure-eight body shape arose due to the shape of the lute produced elsewhere reminding the Spanish too much of *al oud* of their Moorish conquerors.

Vihuelas, like the lutes of their time, had eleven strings in six courses, with similar scale lengths. Lute tabs may be played on a vihuela with the same number of courses without alteration.

The guitar, pictured above, had seven strings in four courses. The surviving music is similar to contemporary music being written for Lute or Vihuela, adapted to four courses.

The earliest pieces for guitar are in Alonso Mudarra’s *Tres Libros de Musica en Cifras para Vihuela* (1546). The remaining pieces in that collection are written for Vihuela. The earliest Italian guitar music is

Melchiorre de Barberii's *Opera Intitolata Continua...libro decimo* (1549) consisting of four fantasias for guitar. From France we have the largest extant collection of music beginning 1550 through 1553, published by Granjon and Fezandat with another collection by LeRoy and Ballard, including fantasies, transcriptions of *chansons*, and a number of dance settings.

There is also an English "Gittern" book written for the same interval pattern as found in the French, Italian, and Spanish music, but it is unclear whether it was written for a gut or wire strung instrument.

In the Seventeenth Century, the 4-course guitar began to be used as an accompaniment instrument, both in *continuo* as well as being used for simple chord playing, much as the Modern guitar continues to be used to the present day.

Surviving examples of the four-course guitar have a scale length of approximately 510mm. Based on some of the surviving music, e.g. duets for two instruments tuned a fifth apart, it is assumed that the guitar, like other instruments of the time, was built in varying sizes to create a "Chest of Guitars." However no examples are known to exist as of this writing.

How do I Tune this Thing?

I Guess We Need to Talk About Tuning

There are many ways to talk about tuning. The first and most obvious is "Absolute" where you refer to the specific pitch of each course of string. In "Absolute" nomenclature, "Standard guitar tuning" is EAdgbe', with pitches sounding an octave lower than written. In that system, "D Standard," a whole step lower, is DGcfad''

In contrast, "Relative" notation considers the intervals between consecutive strings or courses, including the starting string..

Joni Notation

There are lots of ways to notate relative pitch. By far the most useful was invented by Joni Mitchel, who frequently performs in alternate tuning. In Joni notation, "E standard" and "D standard" looks like this:

E:55545 <- The numerals indicate the number of half steps (frets) to the next string
D:55545

Observe that, while the starting pitch is different, the intervals are the same. What this means is that, given a tablature for a piece in E-Standard, it can be played on *any* instrument with the same interval pattern, such as D-Standard, Eb-Standard, or C-Standard. My practice through the rest of this article will be to treat all tunings with the same interval pattern as equivalent.

Documented Four-Course Guitar Tunings

There are two tunings documented to Period sources.

The two tunings are:

- “Old Tuning” — $x:745$, e.g. $fc'e'a'$
- “New Tuning” — $x:545$ e.g. $gc'e'a$

“New Tuning” corresponds to Modern “Linear” ukulele tuning, commonly called “Low G” to distinguish it from the conventional “Reentrant” tuning, referred to as “High G.” Linear tuning for a ukulele in C is $g:545$, and in G, normally used on baritone ukuleles $d:545$. Recall that the matching pattern of numerals means tablatures are interchangeable between the two tunings, assuming the scales aren't too dissimilar.

There are three variations documented variations:

- “Double Bourdon” where the fourth (lowest) course is tuned in unison. This matches “low G” or “Baritone” Modern ukulele tuning.
- “Requinta” where the fourth course is tuned to an octave. This appears to be the most common variation.
- Re-entrant. In this variation, both strings of the fourth course are tuned up an octave, or $x:-745$. This matches “normal” Modern ukulele tuning, commonly referred to as “High G tuning.”

So What About Your Ukulele?

Glad you asked!

Consider the humble ukulele! The Baritone ukulele is a four-(single)-course instrument with a scale length of approximately 500mm. It's Standard tuning is $X:545$. In fact, other than the details of the construction, which changed radically in the Nineteenth Century, the instruments share many similarities.

What are the differences?

- While both instruments are “constructed” bodies, rather than carved, there were significant changes to construction methods made in the 19th Century due to the influence of master luthier Antonio Torres, who largely invented the Modern classical guitar.
- The Period instrument lacks a hard nut or saddle.
- The bridge of the Period instrument is positioned nearer to the end of the soundboard, rather than in the middle of the lower bout.

These changes affect the tone of the instrument, making it generally “sweeter” and “softer” much like the contrast between a Lute versus the similarly pitched, but much louder, Modern Requinto guitar.

- There is no raised fingerboard.

This has the effect of “raising the action,” meaning the distance to fret a note is longer. This affects how it feels to play, and also tends to make fretted notes sharper than they otherwise would be. That should be compensated for in the fret placement..

- Tied frets versus wire frets.

In theory this allows the player to adjust their intonation. In practice I’ve never seen this done once an instrument is initially set up for a particular temperament.

Other Similar Instruments

- Venezuelan Cuatro: Roughly the size of a Baritone ukulele, it’s usually tuned reentrant on the first string $a d' f\# b$ (a:43-7). It is conjectured that the narrower range of the open string tuning was due to the difficulties of manufacturing the wide range of string gauges required for linear tuning in America at the time versus Spain. Dropping the pitch of the first string may have lessened broken strings.
- Cavaquinho has the scale of a Soprano ukulele and the construction of a Classical guitar, but has metal strings and is tuned to an open G chord ($d' g' b' d$ ” or $d':543$)

The diffusion of small, four-course instruments in the wake of Portuguese exploration is a separate, fascinating topic, though largely post-Period.

Why not Get a Period Guitar?

Cost? A reproduction Renaissance guitar will set you back \$2,500 at minimum. A Baritone Ukulele can be had for \$200 for a quite playable instrument. If you’re independently wealthy or a recent lottery winner, go right ahead and buy the “right” instrument. If you’re interested in luthiery, by all means build one. And buy yourself a Baritone Uke to play while you wait 2-3 years for delivery or as long as it takes you to learn.

My philosophy in this is that a “Good Enough” instrument you can learn on Now is, for most people, a better approach to getting the music under your fingers, than waiting until such time as you can afford to buy a Perfect instrument. It’s also useful to consider your tolerance for dealing with the vagaries of natural materials given the widely varying conditions in seasonal event locations. I usually advise novice players to consider good quality laminate instruments, many of which are quite good, prior to taking the plunge into a fine luthier-crafted reproduction instrument.

Brands?

In the Baritone ukulele size, the nearest to the Renaissance guitar, Kala makes reliable, well-built instruments, both in the Kala range and in their less expensive Makala range. For a bit more money, Pono is building all solid wood ukuleles in South Asia that are well-regarded.

In the smaller ukuleles, Makala and Kala remain solid choices, but there are a great many instruments.

The choice of tuning isn't terribly critical, as a re-entrant can be converted to linear tuning by a luthier for not too much money. One of the nice things about the ukulele universe is that it's relatively inexpensive to have several ukes around in various tunings for all of your Period and Mundane needs

Where Do I Get Music?

Period manuscripts are online, mostly written in tablature. The earliest music is written in Italian Tablature, which is inverted from modern tablature. Numerous online resources exist for decoding the various forms of tablature. Search and choose your favorite. Much of the music has also been transcribed for Modern guitar, but you need to be careful as many of the transcriptions require five or six strings.

A few sources for transcriptions:

- [The Four Course Guitar](#), hosted by the Lute Society has links to all of the surviving pieces for four-course guitar, and includes a fair bit of historical information on the documented tunings.
- [PDF Minstrel](#) has a huge library of transcriptions in Modern tablature for all sizes of ukuleles and guitars, including a number of Renaissance pieces.
- Tony Mizen's delightful [From Lute to Uke](#) is a progressive collection of lute and guitar transcriptions for re-entrant tuning.
- [My transcriptions](#) of the guitar pieces from Mudarra's *Tres Libros...* I'd say they were "done" but nonetheless I keep finding small errors, mostly in string selection.
- If you already can read standard notation on ukulele, the [Pennsic Pile](#) has a huge collection of commonly taught dances from several Period sources.
- My own evolving list of [Early Guitar Music](#).

References

- Atlas of Plucked Stringed Instruments, [Early Guitar](#) page, covering through the Romantic era. Also [Lutes](#), including the Vihuela
- [Joni Mitchell's Tuning Notation](#)
- Michael Fink's iconic [Stringing and Tuning the Renaissance 4-Course Guitar](#)
- [The Four Course Guitar](#)

- My ever-evolving list of the [known music](#)

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