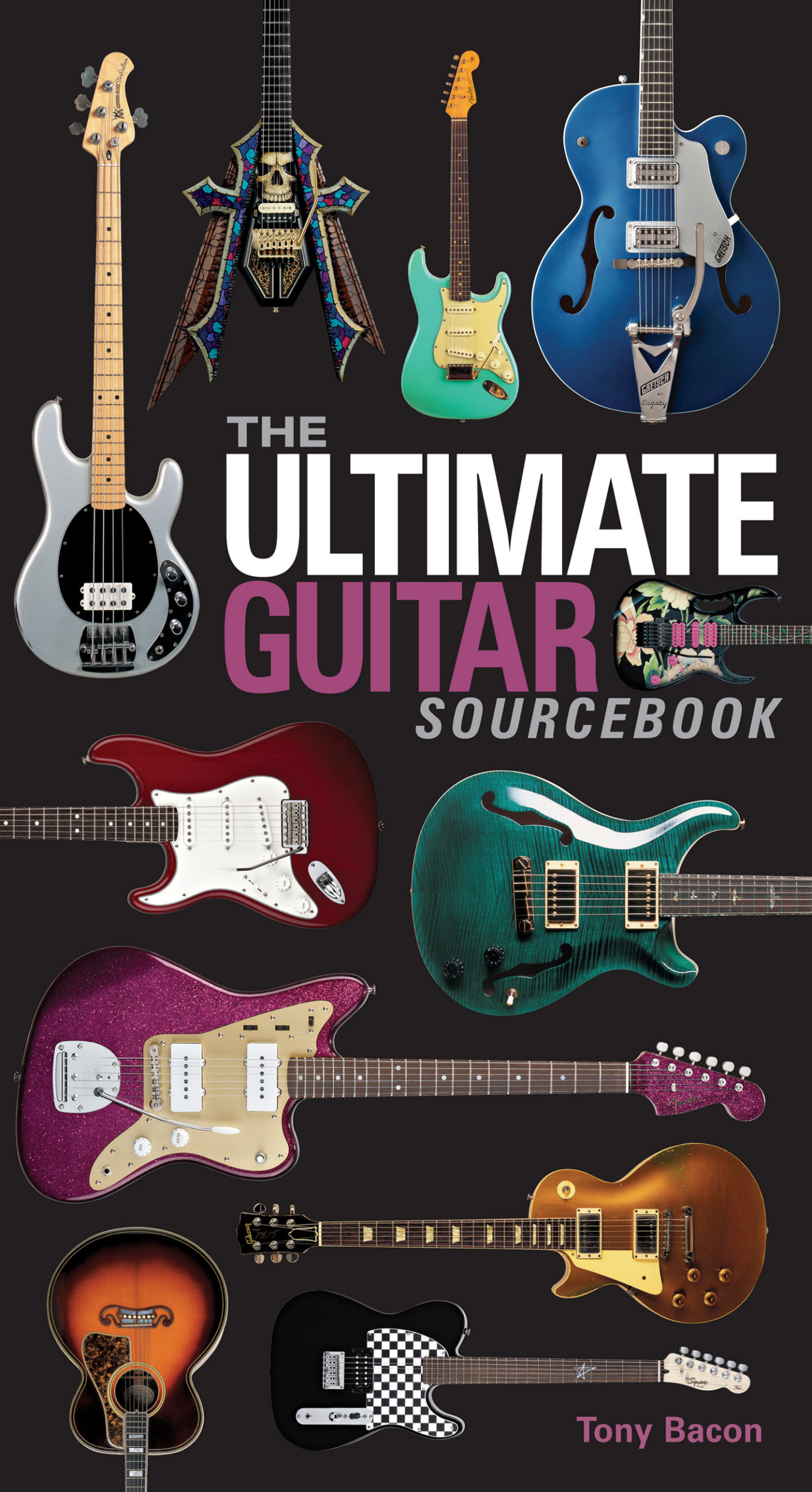
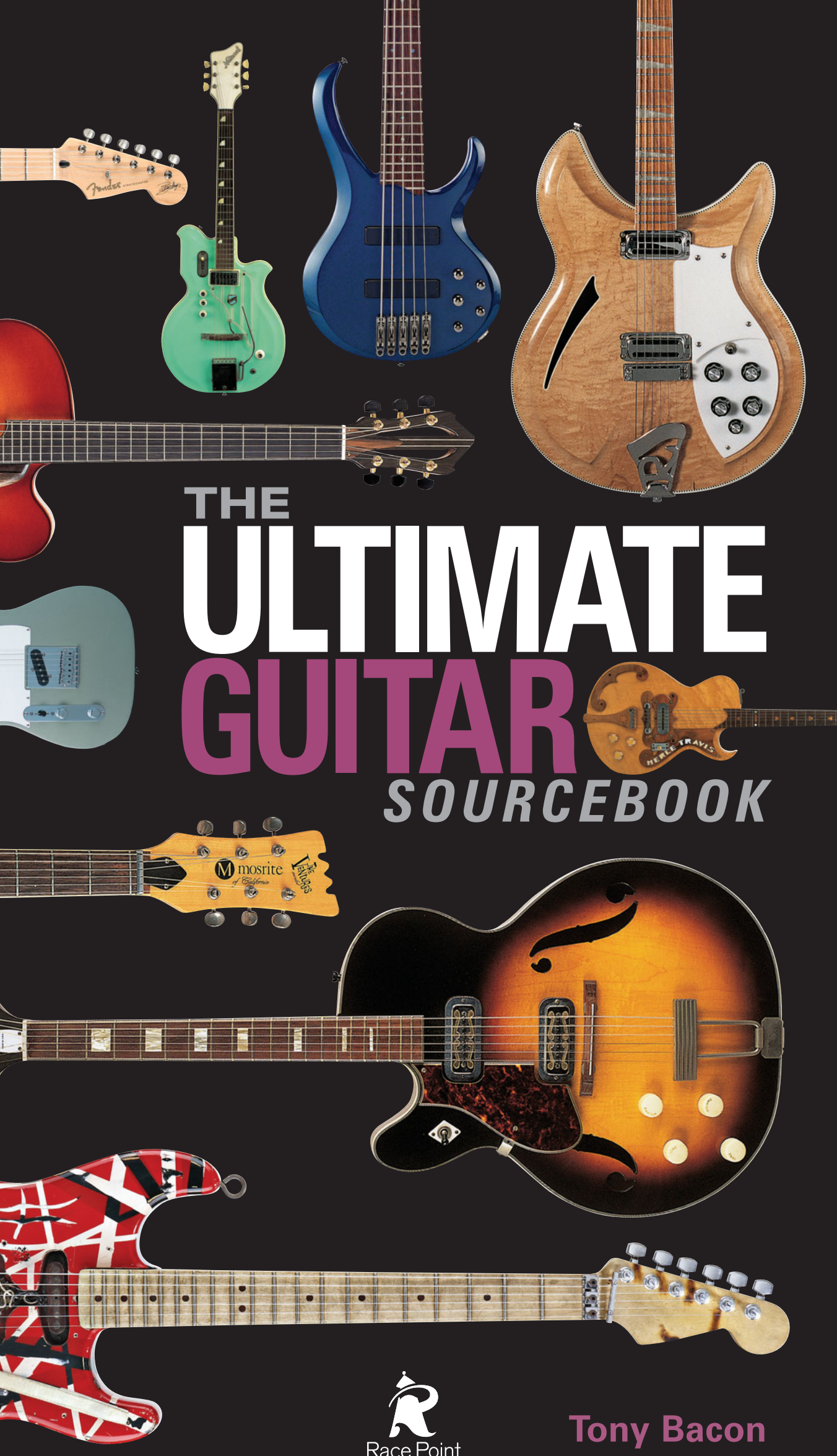


THE ULTIMATE GUITAR SOURCEBOOK

Tony Bacon



THE ULTIMATE GUITAR SOURCEBOOK

Tony Bacon

Race Point
PUBLISHING

CONTENTS

INTRODUCTION

This book tells the story of the guitar through one of the best collections of guitars ever brought together in one book. Dig deep and you'll see guitars from the late 16th century to the early 21st century, with everything from the cheapest beginner's acoustics to expensive instruments designed to appeal to the most demanding players and collectors.

The book shows hollowbody, semi-solid, and solidbody guitars and basses: acoustics, electrics, and hybrids of the two. Laid out before you are great guitars, silly guitars, guitars to make you catch your breath, and guitars to make you smile. Here are famous guitars, everyday guitars, valuable guitars, battered guitars, guitars from museums and guitars from the stage, pointy guitars that fuel the mosh pits, and gentle guitars that soothe the ear.

Simplicity

The guitar's essential simplicity has always offered a challenge to anyone who chooses to make one guitar, one thousand guitars, or one hell of a guitar. How do you improve on such a straightforward, practical object?

People from many different backgrounds have risen to the challenge, building instruments that they hope will bring guitarists nearer to their ultimate guitar. Some of these designers have been musicians, like the inventive and influential Les Paul, bringing a player's mind to bear directly on the nuts and bolts of the guitar. Other makers have been engineers, keen to apply their natural skills with raw materials or with electronics to an object that links craftsmanship, science, and art—just as radio-repairman Leo Fender did in the 1950s when he showed how to take the guitar into the age of mass production.

This book shows how hundreds of makers, from one-man workshops to vast corporate factories, have put their own improvements into practice. It demonstrates how each of them has taken the basic designs that have inspired all who build guitars. Some ideas have succeeded, many more have failed. This book is intended to show the successes and the failures, as well as plentiful examples of the countless guitars that fall somewhere between the two.

Technique

The guitar is an attractive musical instrument, and most who pick it up for the first time find it a simple matter to achieve a relatively successful sound from some rudimentary notes and chords. In this respect, it is an easy instrument for the beginner. But as with all musical instruments, there are very few players who can be said to have mastered the guitar. This opposition of simplicity and difficulty is at the root of the guitar's popularity.

INTRODUCTION

Another reason for the guitar's great popularity is its almost universal musical adaptability. Probably no other instrument has been used regularly in such a wide variety of music, with the possible catch-all exception of percussion. Try to imagine an absence of guitars in rock, flamenco, blues, metal, rhythm 'n' blues, country, punk, bluegrass, jazz, folk, rock 'n' roll, pop, reggae, grunge, indie, thrash, or even (if you can remember it) rockabilly.

And in its "classical" form, the guitar, a largely non-orchestral instrument, has its own solo repertoire. It has occasionally been placed in ensemble and orchestral settings, as in the works of the 20th-century Spanish composer Joaquín Rodrigo. Even the piano, the only other serious contender for the title of the world's most popular musical instrument, does not feature in quite so diverse a range of styles and forms.

Given this universality, one might imagine that the guitar would help establish common ground between the various musical styles. But the interchange between players involved in the broadly defined "classical" and "popular" areas is limited. This isn't down to any limitations imposed by the instrument, however: the neo-classical shred guitarists of the 1980s, exemplified by Sweden's Yngwie J. Malmsteen, proved that in the right hands the electric guitar could be every bit as fluidly expressive as Niccolò Paganini's violin had been.

Young musicians learning the guitar have traditionally been encouraged to amass knowledge on the technical aspects of playing, to fill their heads with scales, arpeggios, and impressive licks. The negative side of this admirable diversity comes when new players begin to wonder about taking their playing beyond the merely technical. Technique is, of course, essential, but not if it is at the expense of the most valuable quality a guitarist can posses—what some call feel, or soul, or spirit.

The balance between technique and feel on any guitar is a constant negotiation, and guitarists usually fall into one camp or the other. Very few players have ever been celebrated as equally adept at both aspects of guitar playing.

Versatility

The guitar is a unique musical instrument: nothing else combines in such a portable package so much harmonic, melodic, and rhythmic potential. Even played on its own, the guitar offers a remarkable range of harmony to the player, who has continuous access to over three octaves (four on many modern electrics), with polyphony limited only by the guitarist's dexterity and the musical context. The guitar's ability to sustain notes or chords is also of great importance.

INTRODUCTION

The overall musical potential of the guitar is kept in a continual state of development by pioneering players. Just one example from many will suffice: during the 1980s, a two-handed "tapping" style was extended and updated by some fusion and metal guitarists. It gave them the ability to play with rapid violin-like leaps, impossible with normal playing techniques. This is a good demonstration of the constant interplay between guitarists and those who design and make guitars. Tapping benefits from a long fingerboard: suddenly, guitars were regularly seen with 24 frets (and more in some cases).

But what comes first? The player's need, or a new kind of guitar? Often it's hard to work out the source of such developments. Is it the new type of instrument that inspires a style of playing, or do guitarists' new methods provoke new kinds of guitars and hardware? Did Floyd Rose and Dave Storey's locking vibrato systems encourage the new breed of tapping guitarists to start using extreme vibrato techniques? Or were these designers trying to provide a device that could do things that players were trying unsuccessfully to achieve with existing systems?

Did dance-band musicians lead the way to electric guitars in the 1930s and 1940s, or was it the guitar companies looking to expand their market? At the end of the 18th century, was it players or guitar-makers who decided that a six-string instrument should supersede the contemporary guitars with five or six doubled courses?

It has always been a mixture of both, and as long as this dialogue between guitarists and guitar-makers continues—and each side listens to what the other is saying—then the future of the instrument should be a healthy one.

The guitar has been fashionable on and off since the 1660s, but during the 20th century it became one of the most popular of all musical instruments. Its popularity has experienced various peaks, particularly in the early 1970s, the mid 1980s, and at various times in the decades that followed. And it has regularly outsold other instruments since its rise to prominence.

Despite the trends of popular music, there has been no shortage of newcomers to the instrument. Most major manufacturers provide a steady stream of quality beginners' instruments, and a shift by big American brands to offshore production in the Far East, especially since the early 1980s, has made it possible for them to maintain profit margins, even during leaner times. One often-lamented development has been the decline of the music store as the place where these beginners make their first purchases. The digital age has seen the rise of the online store, with its lower overheads, increasing success, and distinct lack of community.

Collectables

Many guitars have become collectable: as musical instruments, certainly—but also as historic objects, maybe even as pieces of industrial art, or cultural icons. We have tried to make sure that the guitars in this book are genuine and—a great worry to collectors—that wherever possible they are in original condition, without major modifications or restoration.

To the musician, this obsession with originality is absurd, as the very modification that might make a guitar more playable instantly devalues it in the eyes of the collector. To the collector, any alteration is, at the extreme, an irreversible molestation of the past. It depends on what the guitar has been bought for. Is it to play, or is it to hang on the wall? Ideally, both should be possible.

Collectors and musicians were among the many observers who drew a deep breath in 2004 when Eric Clapton's "Blackie" Stratocaster was sold at auction for a record-breaking $959,500 (plus buyer's premium) to benefit the guitarist's Crossroads drug-rehabilitation charity. In 2011, actor and guitarist Richard Gere sold by auction his collection of more than 100 vintage guitars and amplifiers, raising $936,000 for humanitarian causes. Among them were guitars once owned by Albert King and Peter Tosh.

Many collectors reject these value-by-association sales and argue that a guitar is made valuable by its inherent quality as an instrument, its condition, its desirability among other collectors, its age, its rarity, and, probably last, who owned it. Musicians are often left in the cold when guitars become fashionable among collectors, who can push up prices up to a level where players cannot hope to afford them. The choicest examples of the original Gibson Les Paul sunburst-finish Standard model have commanded five- and six-figure sums, so an example is unlikely to turn up on stage at the average concert. Some of these guitars have inevitably attracted the professional investor, who considers them merely as commodities with a certain market value. Far from reaching the stage, some rare instruments are more likely to be found locked in a climate-controlled bank vault, an environment not usually noted for its musical stimulation.

There is sometimes snobbery attached to the use of old guitars. "They don't make them like they used to" is a commonly heard defense. This value attached to the mojo of vintage instruments has led companies to create brand new artificially-aged instruments for a willing clientele eager to buy fresh vintage. Fender's Time Machine series of so-called "relic'd" Stratocasters, Telecasters, and Precision and Jazz Basses come with various levels of ageing. Even up close, the effect can be convincing. Today, in Fender's Custom Shop, it seems as if they really do make them like they used to—down to the last ding, scratch, and pickup-wind.

When it comes to guitars, however, age is no guarantee of quality. Makers will tell you that two guitars built in exactly the same way from exactly the same piece of timber can sound very different from one another. Move up a step or two to mass production and, despite the consistencies of such a process, there are still the vagaries of timber and the Friday-afternoon guitar to deal with. Each batch of guitars has potentially good and bad instruments. Some say that an old worn guitar is the best bet, the theory being that it has been played because it is a good one. But then it could just as easily be a bad one that has been abused by careless owners.

Materials

Science can tell us a little about the way a guitar behaves as a physical object, but it begins to flounder when it tries to advise guitar-makers about their craft. Of course, some makers do analyze in a scientific manner the nature of the instruments they are building and react to that information in their production methods. Many firms use such techno-inspired facilities as computer-controlled routing on their production lines. While you are unlikely to see a craftsman tuning and carving an individual guitar top in a modern mass-production guitar factory, science has at least brought a greater degree of consistency to the still essentially human process of mass-production.

The American success story that is Taylor Guitars is an example of how a company can cleverly refine its mass-production process by continually incorporating new technology. However, to emphasize the predominance of know-how over materials, in 1995 Taylor created a guitar from oak pallets that demonstrated the importance of construction over expensive exotic woods, later adorning a small run of the guitars with a fingerboard-inlay showing a forklift truck. The message was simple: materials are only part of the story.

Despite that and the continuing importance of the luthier's craft, materials are of prime concern to today's manufacturers. Environmental responsibility and the scarcity of traditional tonewoods has led guitar-makers of all stripes to experiment with new types of wood and even, in some cases, new materials altogether. As you'll see in these pages, guitar makers have messed with carbon-fiber, plastic, and other synthetic materials in attempts at new designs and new processes. Ecological concerns and the emergence of more sustainable guitar woods mean we will probably see more experiments with alternative materials and construction methods in the future.

Great guitar designs are not quantifiable, and that in itself is part of their greatness. The ultimate guitar has yet to be produced, but this sourcebook will acquaint you with many of the others.

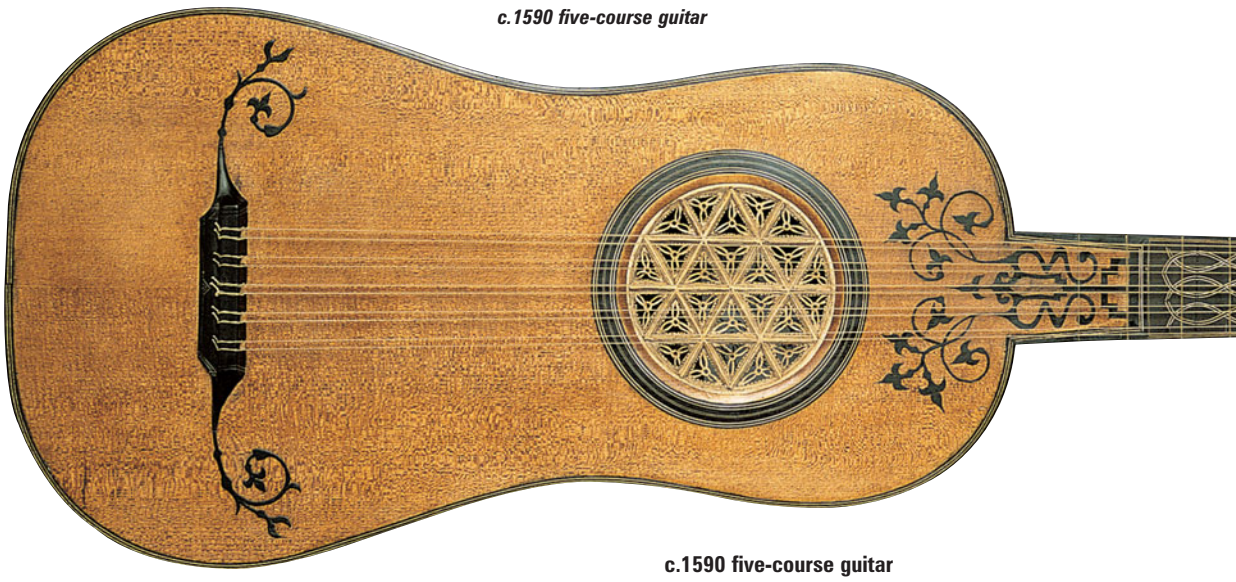
EARLY GUITARS
16th & 17th CENTURIES

To appreciate more fully the modern guitars dealt with in the main body of this book it is useful first to consider the early history of the guitar. To begin, a simple definition: the guitar is a plucked, stringed instrument that has a "waisted" body with incurved sides. There is, according to experts on its history, little evidence of such an instrument existing before the 15th century. That is not to say that broadly similar stringed instruments did not exist long before that time. But a barrage of confusing instrument names and hazy historical data cloud the issue, and even the experts disagree.

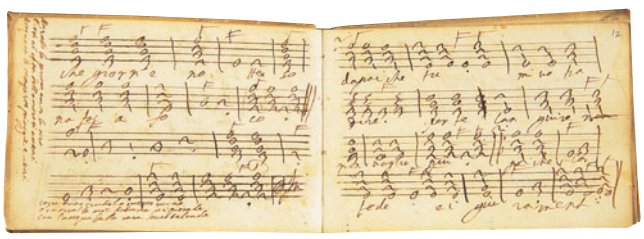
In this book we are concerned with surviving guitars, and the late-16th-century instrument shown below is among the earliest that are still in existence. The earliest guitars had four "courses" (a single, double, or even triple string): the four-course "treble" instrument, despite being surpassed by the five-course guitar, lasted until at least the 17th century. Some early guitars feature superb decoration, exemplified by the ornate soundhole on the 17th-century Italian example on the facing page. These guitars, which were probably owned by the wealthy, may well have survived more for their charm as objects than their utility as instruments. The guitar was a great popular success at this time, yet peasants' guitars have rarely survived.

Italian music book, c.1620

c.1590 five-course guitar

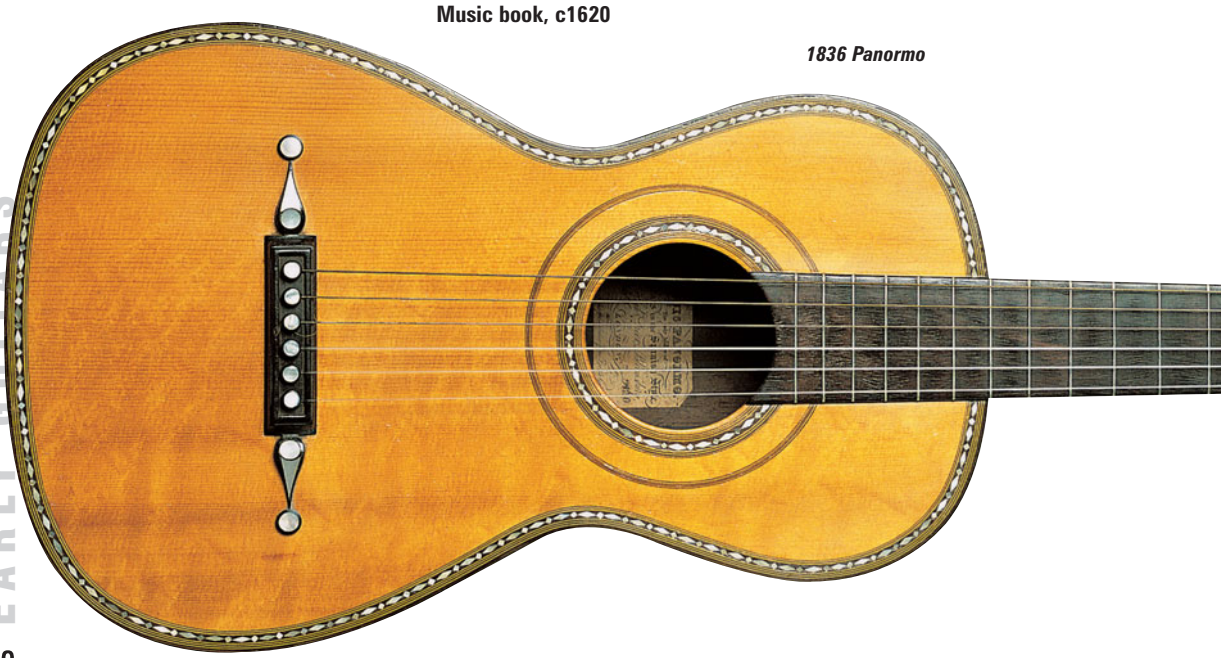


c.1590 five-course guitar
This may be the oldest surviving "full size" guitar, according to its former owner, Robert Spencer. Construction and decoration are similar to a small guitar dated 1581 by Portuguese maker Belchior Dias that is in the Royal College of Music collection, London.



Music book, c1620

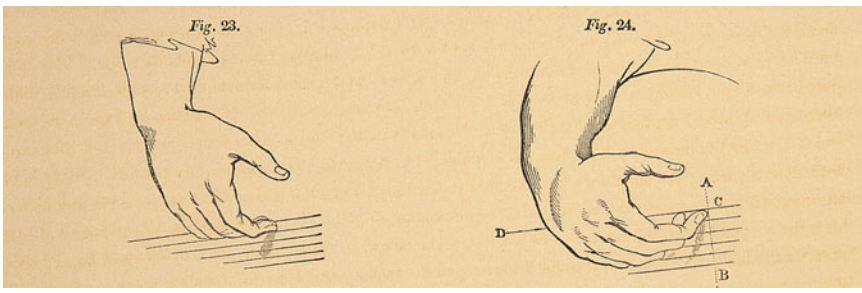
1836 Panormo

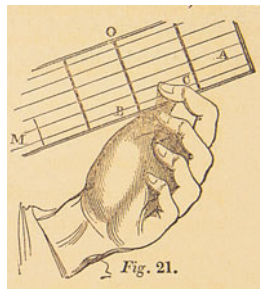


c.1760 Salomon modified five-course guitar

c.1760 Salomon modified five-course guitar
The guitar was made in Paris by Jean-Baptiste Dehaye Salomon. It has been modified with two added tuners and an extra bridge channel, designed to accommodate a sixth course. There is no room on the neck for more strings, so the sixth course probably ran free of the neck on the bass side, over an extended nut.

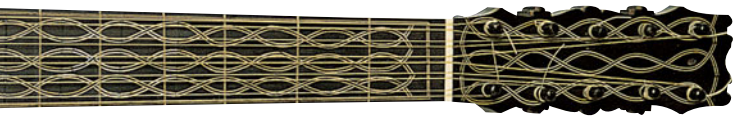
1832 Fernando Sor Method



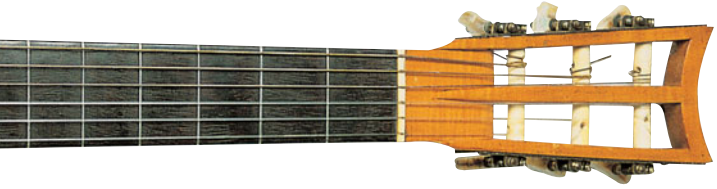


1832 Fernando Sor Method
The book of music on the facing page is a collection of Italian songs from about 1620, handwritten with tablature and rhythmic symbols for a strummed guitar accompaniment. The three hand illustrations (above) are from Fernando Sor's 1832 book, *Method For The Spanish Guitar*; the two on the right are "to be avoided".

c.1804 Pagés six-course guitar
This instrument was made in Cadiz, south-western Spain, by Joséf Pagés. He was among the first in Spain to use a fan-strutting system, later developed by Antonio de Torres (see pages 18–19).



17th-century decorated soundhole detail



1836 Panormo
The son of an Italian violin-maker, Louis Panormo ran a prolific workshop in London. This 1836 specimen shows how Panormo often included elements from the best contemporary instruments (compare its shape to that of the Pagés, pictured right, for example). Panormo regularly fitted superior machine heads rather than pegs, and was one of the few makers outside Spain using fan-strutting.

c.1804 Pagés six-course guitar

LYRE, CITTERNS, HARPS
EARLY ODDITIES

The instruments shown on this page are not mainstream guitars, but they do highlight an interesting tributary of European design.

Principally in France and as a result of the so-called "classical revival," the lyre guitar (below left) rather fancifully adopted the shape of the ancient Greek lyre—an outline often used in the West as a symbol of music. It has been suggested that its great popularity around the early 19th century, mainly with amateur players, influenced the move at this time by many makers of conventional guitars to six single strings.

The "English guitar" with six metal-strung courses and a small, rounded body shape was very popular in Britain from the middle of the 18th century to the early 1800s, when it was ousted by the conventional Spanish-style guitar. As we have seen, guitar makers had begun by the mid-16th century to adopt five courses and a generally larger instrument than the early "treble" four-course guitar. Tunings of the "baroque" five-course guitar varied widely, but by the middle of the 18th century had started to become standardized toward A/D/G/B/E—in other words, as the top five strings of the modern guitar.

At about the same time as a vogue (primarily in France and Britain) for some unusual instruments related to the guitar, conventional makers started around the late 18th century to move from five to six courses on their guitars, with the extra course tuned to a low E. From there a simple refinement was made, at first in Italy and France, to six single strings: the result, adopted widely elsewhere, was an instrument looking and sounding a little closer to the modern guitar.

c.1810 Wornum lyre guitar
Lyre guitars were made around 1800 when a classical revival made fashionable such combinations as guitar and lyre or guitar and harp. This Wornum lyre guitar (below) was made in London around 1810. Note the complement of six single strings, by-then becoming predominant. A similar example is seen in the print on the facing page, from around the same period.

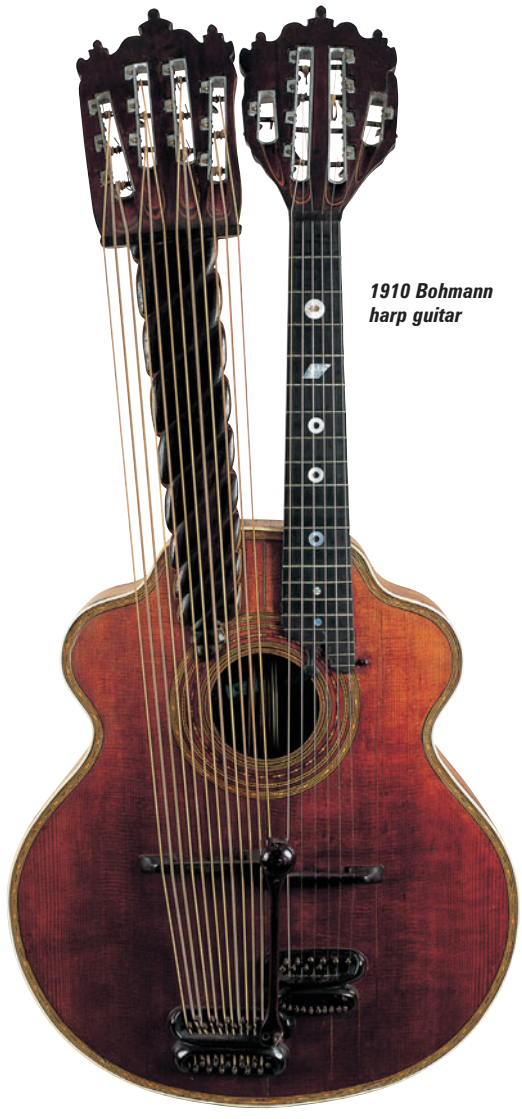
c.1775 Preston "English guitar"

c.1810 Wornum lyre guitar

c.1775 Preston "English guitar"
The above instrument was not a guitar at all, but a type of cittern. John Preston worked in London around the 1750s and made many "English guitars," which were more popular in Britain at this time than the conventionally shaped guitar.

c.1920 Larson harp guitar
Brothers Carl and August Larson of Chicago crafted many fretted innovations between the mid-1890s and the early 1940s, including these two contrasting harp guitar designs.

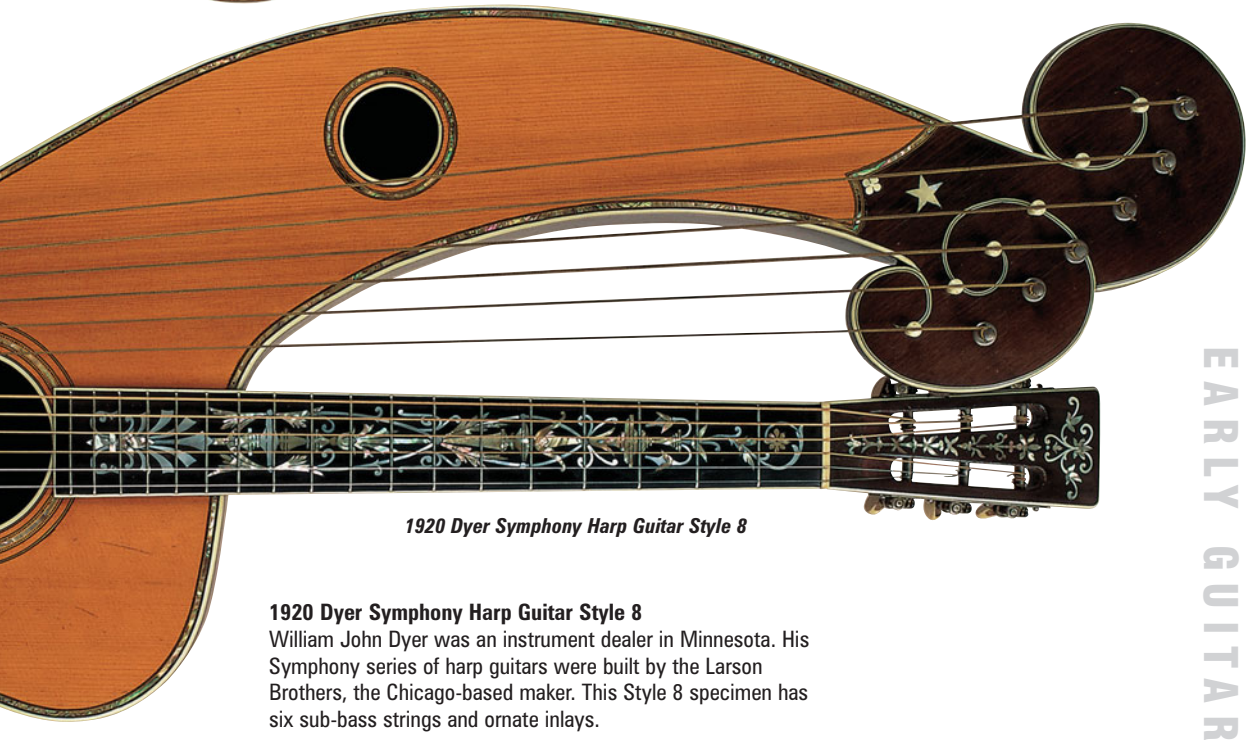
Painting of Wornum lyre guitar player, c.1810



1910 Bohmann harp guitar

1910 Bohmann harp guitar
Joseph Bohmann was born in Neumarkt, Bohemia (now the Czech Republic) and settled in Chicago in 1878, where he supplied guitars to Sears. Harp guitars were a specialty, and this example features 12 sub-bass strings and seven "sympathetic strings" inside.

c.1920 Larson harp guitar



1920 Dyer Symphony Harp Guitar Style 8

1920 Dyer Symphony Harp Guitar Style 8
William John Dyer was an instrument dealer in Minnesota. His Symphony series of harp guitars were built by the Larson Brothers, the Chicago-based maker. This Style 8 specimen has six sub-bass strings and ornate inlays.

CHAPTER ONE

ACOUSTIC GUITARS

There are principally two kinds of acoustic guitar: the flat-top and the archtop. The general description of a flat-top with a round soundhole covers classical nylon-strung instruments as well as steel-strung "folk" guitars. The archtop acoustic was a later development, designed to increase the volume of the basic instrument.

Volume has driven many subsequent innovations in the acoustic guitar's history. The resonator tradition that began in the late 1920s, with spun metal cones inside the body to amplify the sound, was one such solution. Meanwhile, ever-larger bodies and refinements to the construction and internal bracing of purely acoustic instruments led to increased projection of the instrument's voice.

Companies such as Martin progressively evolved the steel-string instrument, and in doing so came to dominate the market and define what we think of as an acoustic guitar in our mind's eye. Meanwhile, the parallel traditions of the classical and the flamenco guitar thrive to this day.

The opportunities afforded by mass production, particularly in the Far East, have placed affordable and often quality acoustic instruments in the hands of many more aspiring players in recent times. As we approach the present day, larger US firms such as Taylor and Japanese manufacturers such as Yamaha peacefully coexist alongside a procession of specialist "boutique" makers around the globe.

High-end hand-made creations from artisan luthiers such as Lowden, Collings, and others offer a variety of woods, shapes, and sizes, with modern cutaway and pickup options, alongside classic traditional designs. Meanwhile, the abiding popularity of acoustic music and the enduring romantic ideal of the lone troubadour strumming away into the night guarantee a healthy future for the acoustic guitar.

1

CLASSICAL GUITARS
ANTONIO DE TORRES

During the 19th century the guitar began to develop into the instrument generally referred to now as the "classical" guitar. The maker most responsible for this development was Antonio de Torres of Spain.

Around 1800, the European guitar had moved away from five courses to six single strings. Many of the early six-string instruments had relatively small bodies with transverse strutting inside the top, such as those made in the 1830s by the Frenchman René Lacôte. Torres, however, introduced a bigger but not heavier body with wider bouts, and established the fan-strutting pattern inside the top of the body as the most effective for the Spanish guitar.

Torres's methods produced a tonally more wide-ranging instrument, particularly in the bass, and his ideas for an integrated guitar were widely adopted in Spain, and also in other guitar-making centers far beyond.

Torres was born near Almeria, and worked in Seville (1852–69) and Almeria (1875–92). His designs developed his theory that the guitar's top was the key to its sound. Torres's fan-strutting pattern for the top's underside, his characteristic "doming" of the lower bout, his shifting of the bridge proportionately further up the body, and his uses of relatively thin woods all combined to produce strong but not heavy guitars with a responsive, rounded sound and an elegant plainness.

The best known contemporary guitarist to use Torres instruments was Francisco Tárrega (1852–1909), who was among the first to establish the guitar as a "serious" musical instrument. The maker José Romanillos, in his book *Antonio de Torres—Guitar Maker*, estimated that Torres made some 320 guitars during his two active periods, of which 66 had been traced.

1860 Torres first epoch (I)

1860 Torres first epoch (I)
This early example of Torres's influential handiwork has a spruce top, a four-piece cypress back, and cypress sides.

1888 Torres second epoch
Torres left Seville and gave up guitar-making for a time in 1870, but returned to the craft five years later in Almeria, beginning his "second epoch." This 1888 instrument was one of 320 he built up until his death in 1892, at the age of 75.

1860 Torres first epoch (II)

1860 Torres first epoch (II)
Guitars like this underline the view that Torres originated the modern style of flamenco guitar. Note the body shape and materials.

1882 Torres second epoch
This Torres guitar was discovered in South America in 1989. Like most Torres instruments it conforms to one of the several body shapes (plantilla is the Spanish term) that Torres used, all of which were related in overall proportions.

1882 Torres second epoch

1888 Torres second epoch

CLASSICAL GUITARS
EUROPE

Visually, most modern "classical" guitars bear the shape and general characteristics of Torres's 19th-century designs, though some makers now use bigger bodies. Efforts for change have also taken place inside the guitar, principally in the layout of strutting under the guitar's top, crucial to its overall tone and volume. It is the production of the latter quality, while retaining or even improving upon the former, that has exercised many maker's minds, as the legendary Segovia pointed out in Christopher Nupen's 1969 film about the great guitarist: "When I arrived in the musical world I began to play in very big halls, and from that moment all the makers tried to do a guitar that sounds better and stronger. To have this instrument with the strong sounds, and mellow, it is really a great achievement of the guitar makers."

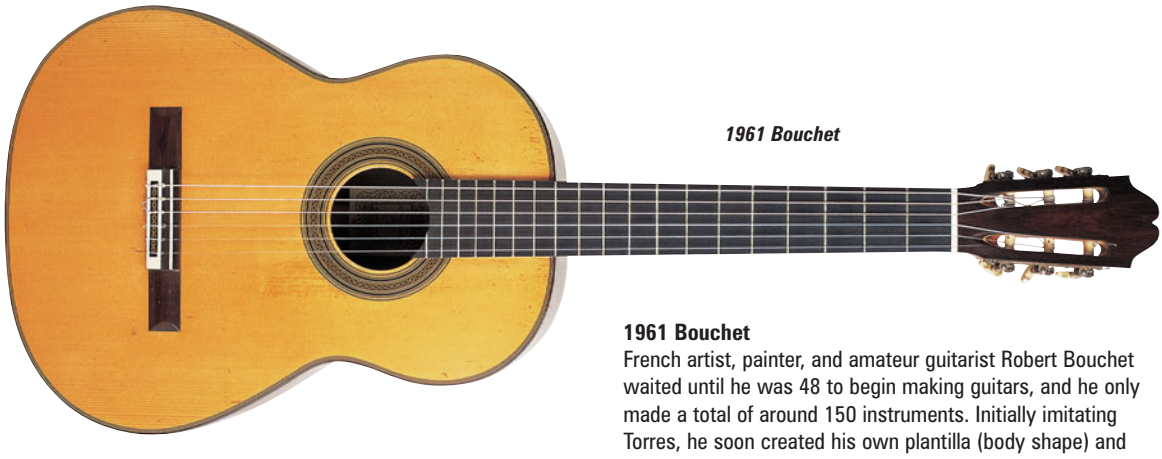
Born near Granada in southern Spain, Andrés Segovia (1893–1987) did more than any other player to popularize the "classical" guitar on the concert stage. In 1912 Segovia replaced his first guitar (by Benito Ferrer) with a Manuel Ramírez (probably made in the Ramirez workshop by Santos Hernández). He changed in the late 1930s to a Hermann Hauser, which he used until about 1970, when he moved to new guitars by Fleta and José Ramírez.

1935 Hermann Hauser 1

1985 Romanillos "La Buho"
José Romanillos was born in Madrid in 1932 and has lived in Britain since 1959. He set up a workshop near Julian Bream's home in England in 1970. Romanillos's son Liam has made guitars since 1991. Bream played Romanillos guitars, among others, from 1973 and used the guitar shown until 1990.

1935 Hermann Hauser I
Based in Munich, Hermann Hauser (1882–1952) made a variety of stringed instruments. Some earlier guitars were in an older, non-Spanish style, but he soon adopted the Torres style. His son and grandson were both also named Hermann Hauser: Hermann II continued to make guitars until his death in 1988, and Hermann III is still active.

1985 Romanillos "La Buho"



1961 Bouchet

1961 Bouchet
French artist, painter, and amateur guitarist Robert Bouchet waited until he was 48 to begin making guitars, and he only made a total of around 150 instruments. Initially imitating Torres, he soon created his own plantilla (body shape) and strutting method. His guitars were owned by Ida Presti, Alexandre Lagoya, and Julian Bream.

1906 Arias

1906 Arias
No photos or documents of Madrid-based maker Vicente Arias survive, and he left no heirs or apprentices. But his legacy is one of the finest of the early classical period, and the quality of his guitars bears comparison to those of Torres. Smaller and lighter than those of the master, they employed different body shapes and between four and eleven internal struts.

1988 Hauser III
This instrument has three generations of German guitar-building expertise resonating through its body. Herman Hauser I began in 1905, and eventually created instruments in the Spanish style that Segovia declared "the greatest guitar of our epoch." Herman Hauser III continues the family tradition to this day from his Reisbach workshop, as does his daughter Kathrin Hauser.

1988 Hauser III

Hofner press ad from 2003

CLASSICAL GUITARS
REST OF THE WORLD

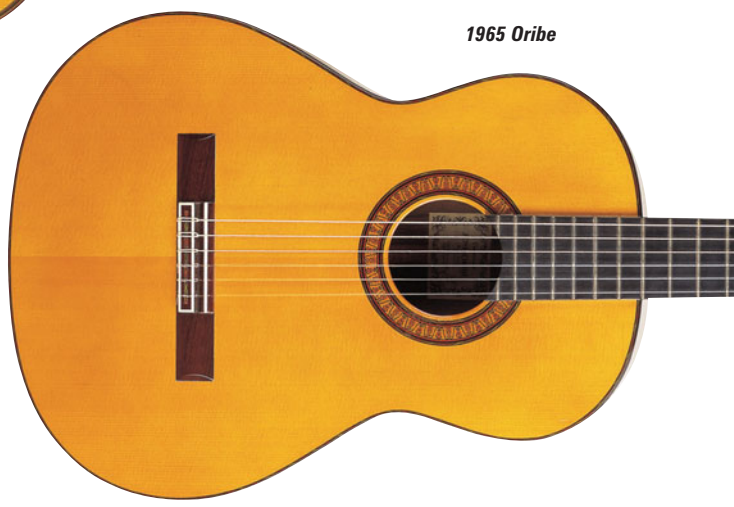
Credit for the classical guitar's development is primarily associated with European makers. But like language, its appearance in cultures outside Europe can be traced along ancient colonial and trade lines—ever since Spanish colonizers brought their protean vihuelas to the Americas in the 16th century. Later, its popularity exploded as a consequence of industrialization, when transport advances brought increased exposure for touring classical musicians such as Segovia. The migration of skilled guitar makers to countries such as the USA paved the way for the instrument's ineluctable rise.

Today's classical guitar landscape has been enriched by the various traditions and innovations of guitar makers from outside of Spain—although that country still plays a leading role. Against an industrial backdrop on a scale that Torres and Hauser could not have imagined, makers in the United States, Japan, and Australia have continuously refined the design of the soundboard and explored new materials in the pursuit of the perfect classical musical instrument. Torres and his contemporary makers would undoubtedly have been shocked to see what the guitar has become, but they would be fascinated by the way their ideas have been adapted by makers such as Greg Smallman in Australia. They probably would have been gratified to observe that handmade guitars and keen craftsmanship are still prized above all, wherever you are in the world.

Guild press ad from the 1960s

1998 Nuñez

1998 Nuñez
Francisco Nuñez (1841–1919) was a Spanish immigrant to Argentina who opened a workshop and store in Buenos Aires in 1840. His workshop used European machinery to mass-produce classical instruments, and Nuñez continued to hand-build guitars. The store, Antigua Casa Nuñez, still trades today.



1965 Oribe

1965 Oribe
José Oribe from Pennsylvania left his job as a machinist in the aerospace industry and began building guitars a few years later, in 1962. Barely three years on, he'd progressed to building outstanding instruments like this wide-bout concert guitar with its spruce top and Brazilian rosewood back and sides.

c.1983 Contreras Carlevaro

1972 Alvarez Yairi 5011
Kazuo Yairi is a Japanese acoustic maker whose output includes handmade flat-top acoustic and classical models. Sold in the States under the name of their importer, Alvarez, the Yairi family has been making guitars for over seven decades. This cedar-top classical is typical of Alvarez's value-for-money offerings of the early 1970s.

1972 Alavarez Yairi 5011

1992 Smallman

1992 Smallman
Australian luthier Greg Smallman's revolutionary designs employ a thin soundboard supported by a lattice of carbon-fiber and balsa, which produces a bright and loud projection. Classical player John Williams is the brand's highest-profile ambassador and has done much to popularize Smallman internationally. This example has a western red cedar top.

1980 Ruck

1980 Ruck
Milwaukee-born guitar maker Robert Ruck is a classical and flamenco player and celebrated builder. He has built a wide range of stringed instruments, and until he stopped taking commissions, his specialty was designing and building custom orders.

1966 Yamaha Model 150c
One of the earliest guitars the Yamaha behemoth ever produced, the 150c was built at the company's subsidiary in Los Angeles. Yamaha continued to refine its classical line's features and introduce models in rosewood, mahogany, or maple alongside its first steel-string guitars.

Sada-Yairi press ad 1975

c.1983 Contreras Carlevaro
This Spanish classical maker's conversation with Uruguayan guitarist Abel Carlevaro led to this eyecatching model. Featuring a one-sided waist, a slotted outline in place of a soundhole, and double sides and back, it continued the experimentation of Carlevaro's 1974 "double-top" guitars, where two tops resonate together in sympathy.

1966 Yamaha Model 150c

FLAMENCO GUITARS
TRADITIONAL & MODERN

The influence of Torres spread throughout Spain and into the rest of Europe. Madrid became the center of guitar-making expertise, and instruments from some of the most famous of these guitarreros (the Spanish word for guitar-makers) are shown on these pages. For some time into the early 20th century the flamenco guitar was the most popular kind of Spanish guitar. It was not until the great Andrés Segovia began to perform widely during the 1920s and 1930s that the idea of the serious "classical" guitar took root, since when this instrument has become the dominant type of Spanish guitar. There have also been important makers outside Spain: for example, in Germany and France.

"Flamenco" is the word generally applied to the folk music of the gypsies of Andalusia, southern Spain. The form combines song (cante), dance (baile), and guitar playing (toque).

The percussive guitar style includes rhythmic tapping of the guitar's top (often protected by a plastic golpeador, or tap plate) and requires an attacking sound with little sustain. Differences from the "classical" guitar include the extreme lightness of the flamenco guitar and the low action of the strings to aid percussion and speed. Recent performers tend to use instruments combining design elements of flamenco and "classical" guitars.

1934 Esteso flamenco

1954 Barbero

1936 Julián Gómez Ramírez
Julián Gómez Ramírez (1879–1943) was a student of either José Ramírez I or Manuel Ramírez before he moved to Paris, and influenced French makers to follow the Spanish tradition. This concert guitar, with its understated rosette and bridge, has been opened up for repairs but still plays beautifully.

1936 Julián Gómez Ramírez

1913 Manuel Ramírez

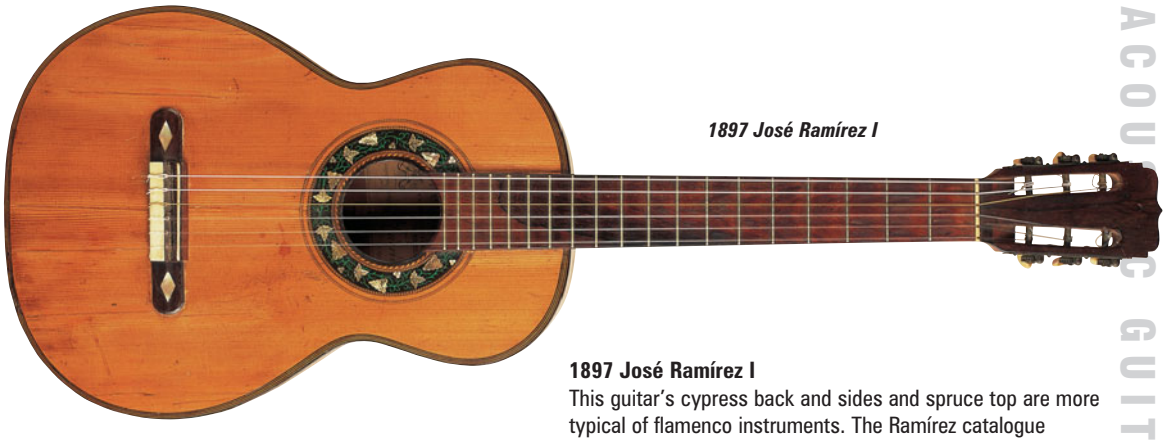
1913 Manuel Ramírez
Manuel Ramírez (1864–1916) is highly regarded, for both "classical" and flamenco guitars. His workshop spawned many later great makers. Early guitars were in the style of his brother, Jose Ramírez 1, but Manuel soon defined his own style.

1934 Esteso flamenco
Domingo Esteso (1882–1937) trained at Manuel Ramírez's workshop in Madrid, later setting up in that town in his own right to wide praise.

1954 Barbero
Marcelo Barbero (1904–1956) worked for Ramírez II, and in the latter stages of his career, when this instrument was made, he had moved toward a more solo-performer suited tone. This was in contrast to the bright sound of traditional flamenco instruments, which are designed for accompaniment.

1990 José Ramírez 1A

1990 José Ramírez 1A
The Ramírez dynasty began with brothers Jose I (1858–1923) and Manuel. The business passed to José II (1885–1923), José III (1922–95), who headed the workshop that produced the guitar shown, José IV (1953–2000), and today a team led by Amalia Ramírez (born 1955).



1897 José Ramírez I

1897 José Ramírez I
This guitar's cypress back and sides and spruce top are more typical of flamenco instruments. The Ramírez catalogue described smaller guitars of this type as "suitable for senoritas". The rosewood fingerboard and bridge and its mother-of-pearl and coloured mastic-and-wood rosette would have made it an expensive model for a cypress guitar.

MARTIN
EARLY GUITARS

C.F. Martin Sr.

For more than 150 years, the Martin company has been producing some of the finest acoustic flat-top guitars in the world. Martin's designs for the shape of the guitar's body, its internal bracing, and its decorative inlay work have influenced virtually every maker of acoustic guitars, both directly and indirectly. The company has been in the hands of the Martin family since the beginning, when Christian Frederick Martin emigrated from Germany to set up a music store in New York City in 1833. He soon moved to Nazareth, Pennsylvania, where Martin is still based today.

Arguably, Martin's real success started in the 1930s and was consolidated following World War II, but many of Martin's classic designs were formulated well before that time, and a number of fine guitars were made by the company before the start of the 20th century. Christian Frederick Martin was born in 1796 in Germany, the son of a guitar-maker. He worked for his father and other makers, including Stauffer in Austria, but emigrated to the United States in 1833. The business was moved from New York to Pennsylvania, a factory established, and Christian Frederick Martin's grandson, Frank Henry Martin, took over the running of the company in 1888. Since then successive generations of Martins have headed the company; the most recent is C. F. Martin IV, who became Chairman of the Board in 1986.

c.1820s Stauffer (attributed)
C. F. Martin Sr. (1796–1873) worked for guitar-maker Johann Stauffer of Vienna—and, not surprisingly, this Stauffer guitar from the 1820s looks very much like the early Martins, with its scroll headstock, six-on-a-side tuner unit, "moustache" bridge ends, and relatively large upper bout.

c.1839 Martin & Bruno
Charles Bruno was a New York-based distributor of musical instruments, and C.F. Martin Sr. had a partnership with him for just seven months.

c.1820s Stauffer (attributed)

c.1839 Martin & Bruno

c.1840 Martin & Coupa

1830s Martin Stauffer-style

c.1840 Martin & Coupa
C.F. Martin Sr.'s partnership with John Coupa, who was a guitarist and teacher based in New York City, continued until 1850.

1830s Martin Stauffer-style
The Johann Stauffer-esque appointments, including the extended treble-side on this 1830s model, gave way to a plainer and more austere design.

1830s Martin Stauffer-style

MARTIN
EARLY GUITARS II

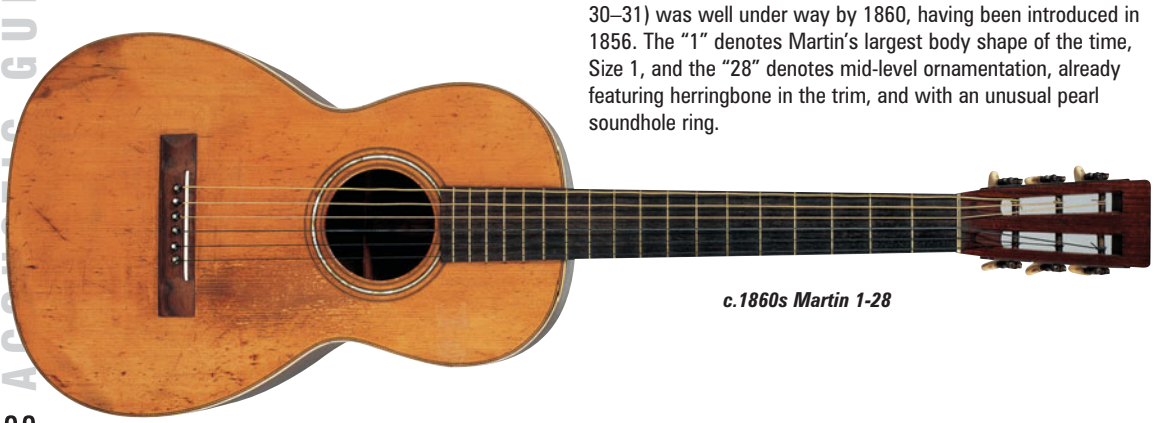
X-bracing is used by almost all acoustic makers today, and its introduction was a fundamental design innovation for which we owe our thanks to Martin. In the period up to the end of the 19th century, Martin's guitars started to shed obvious European influences such as the Stauffer-style headstock. The company began to formulate its own designs and schemes, including the famous X-bracing. This refers to the pattern of wooden strips inside the top of the body, which contributes to the particular quality of tone produced by an acoustic guitar. Martin developed its X-shaped pattern in the 1850s and has used it ever since. Most other acoustic makers followed suit.

The Nazareth stamp was another landmark change for the company. At the end of the 19th century, Frank Henry Martin, who had taken charge in 1888, decided no longer to use Martin's New York distributor, Zoebisch. Frank began to sell guitars direct to dealers in 1898, giving Martin more control over their own business. So it was at this time that the brand stamp changed from "C F Martin & Co, New York" to "C F Martin & Co., Nazareth PA." Zoebisch had insisted on retaining the "New York," despite Martin's move to Nazareth some 40 years before.

Late-1830s Martin

c.1830s Martin & Schatz

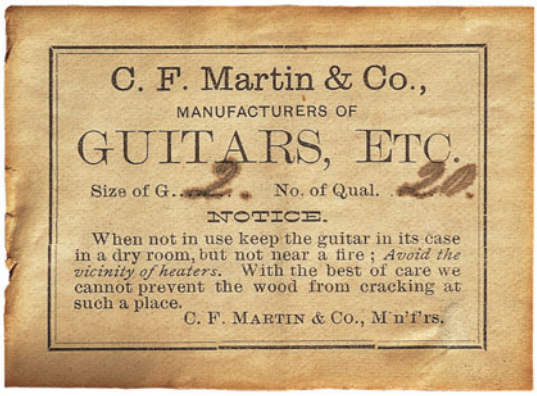
c.1860s Martin 1-28
The Martin "style number" classification system (see pages 30–31) was well under way by 1860, having been introduced in 1856. The "1" denotes Martin's largest body shape of the time, Size 1, and the "28" denotes mid-level ornamentation, already featuring herringbone in the trim, and with an unusual pearl soundhole ring.



c.1860s Martin 1-28

c.1883 Martin 2-27

c.1883 Martin 2-27
This later, smaller Size 2-bodied example shows the Style 27 ornamentation. The abalone soundhole ring is seemingly out-of-sequence—it was considered a more luxurious appointment and was usually only found on 30-series Martins. The small pickguard is not original.



Martin case label

Late-1830s Martin
This model has a straight-sided peghead, three-ring soundhole rosette, and displays an early use of herringbone in the binding. It shows how Martin was progressively evolving beyond European design principles at this time, although this body shape had been used in Spain since the early 1800s.

c.1860s Martin

c.1860s Martin
From the 1850s and through the next few decades that followed, Martin's guitar designs were refined rather than revolutionized. C.F. Martin took on his son, C.F. Martin Jr, in 1867, but both had died by 1888, which is when 22-year-old Frank Henry Martin took over and steered the traditional German company into the 20th century.

c.1830s Martin & Schatz
Martin & Schatz guitars were either made with or marketed by Martin's friend from Markneukirchen, Heinrich Schatz. Martin followed Schatz to the US in 1833 and it's believed Schatz may have had an influence in the development of X-pattern bracing. Martin again followed Schatz in 1835, buying a home that still stands today in Cherry Hill, just outside Nazareth, eastern Pennsylvania.

c.1874 Martin 1-40
Along with the 1-42, the 1-40 was the most ornately decorated model in the range at the time, with its liberal use of abalone around the soundhole and the edge borders. The bridge is of the firmly established "pyramid" type, introduced in the 1840s and so-called because of the shape of its carvings.

c.1874 Martin 1-40