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Guitar

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Guitar

(Fr. *guitare*; Ger. *Gitarre*; It. *chitarra*; Sp. *guitarra*; Port.*viola*; Brazilian Port. *violão*).

A string instrument of the lute family, plucked or strummed, and normally with frets along the fingerboard. It is difficult to define precisely what features distinguish guitars from other members of the lute family, because the name ‘guitar’ has been applied to instruments exhibiting a wide variation in morphology and performing practice. The modern classical guitar has six strings, a wooden resonating chamber with incurved sidewalls and a flat back. Although its earlier history includes periods of neglect as far as art music is concerned, it has always been an instrument of popular appeal, and has become an internationally established concert instrument endowed with an increasing repertory. In the Hornbostel and Sachs classification system the guitar is a ‘composite chordophone’ of the lute type (*see*LUTE, §1, andCHORDOPHONE).

1. Structure of the modern guitar.

Exploded diagram of a modern guitar showing the Spanish and…

Fig.1 shows the parts of the modern classical guitar. In instruments of the highest quality these have traditionally been made of carefully selected woods: the back and sidewalls of Brazilian rosewood, the neck cedar and the fingerboard ebony; the face or table, acoustically the most important part of the instrument, is of spruce, selected for its resilience, resonance and grain (closeness of grain is considered important, and a good table will have a grain count about 5 or 6 per cm). The table and back are each composed of two symmetrical sections, as is the total circumference of the sidewalls. The table is supported by struts of Sitka spruce, which contribute greatly to the quality of sound. Over-extraction of many of these woods led to a global shortage at the end of the 20th century, and luthiers, having exhausted their old stocks, turned to alternative materials. Indian rosewood and maple were often used instead of Brazilian rosewood (trade of which was banned throughout the world), the table was sometimes made from Canadian or western red cedar (acid rain and war in the Balkans having affected supplied of European spruce), mahogany from Honduras and Brazil was occasionally used for the neck, and African blackwood was being considered as a substitute for ebony.

The traditional arrangement has the struts radiating from below the soundhole under the lower part of the table; hence the term ‘fan-strutting’. Various other patterns have resulted from experiments by different makers: some makers use a much thinner soundboard and a grid pattern of fine longitudinal struts with a smaller number of larger lateral struts, creating a membrane supported by a delicate but strong grid; others prefer a diagonal grid of struts (which include carbon fibre for extra strength). As high sound quality has been achieved by several of these makers, it is clear that one cannot speak of a standard strutting pattern; whatever the pattern, the table must be allowed to vibrate adequately. Vibrations of the strings are transmitted to the table by a rosewood bridge, which also acts as lower string fastener. The lower vibrating length of each string is determined by an ivory or bone saddle in the bridge and by a nut, also ivory or bone, at the upper end. The frets (usually 19), giving a total range of three and a half octaves, are of nickel silver. The three upper strings are made of nylon, the three lower of nylon strands overspun with fine metal. Tuning is effected by rear pegs activating a geared mechanism that turns the bone or nylon rollers. The standard tuning is *E–A–d–g–b–e′*. Guitar music is notated an octave higher than it sounds.

There are two methods of joining the neck to the body – the ‘Spanish method’ and the ‘dovetail method’ (fig.1). In the former the neck is projected into the body, and the sidewalls are slotted into the heel of the neck, while in the latter the body is completed first and the neck fitted into the top block. The Spanish method is more difficult to achieve but results in a stronger joint between neck and body and is hence preferable as this is an area of great tension. Modern guitar decoration is limited to a wooden mosaic inlay surrounding the soundhole; the inlay may be repeated in the bridge but the bridge more often has ivory, wood or synthetic purfling, which is also functional as it protects the wood from the pressure of the strings. Typical

measurements for a guitar are: overall length 98 cm; string length 65 or 66 cm; width at the lower bout 37 cm, at the waist 24 cm, and at the upper bout 28 cm; body length 48·5 cm; nut to body 30 cm; depth at the lower bout 10 cm, at the upper bout 9·5 cm.

Harvey Turnbull/Paul Sparks

2. Origins.

There has been much speculation on the origin of the guitar, and several theories have been proposed to account for its presence in Europe. Some have regarded it as a remote development from the Ancient Greek kithara – as suggested by the etymological relationship of 'kithara' and 'guitar'; others have seen guitar ancestors among the long-necked lutes of early Mesopotamia and Anatolia or in the flat-backed 'Coptic lutes' of Egypt. One subject of disagreement has been whether the guitar was of indigenous European development or was instead among the instruments introduced into medieval Europe by the Arabs; but the application of the name 'guitar', with its overtones of European musical practice, to ancient and oriental lutes betrays a superficial acquaintance with the instruments concerned.

Short-necked lutes, among which the European guitar is classed, appeared many centuries later than the long-necked type. The earliest representations of the guitar shape in a short-necked lute appeared in Central Asia in the 4th and 3rd centuries BCE. From that time until the 4th century CE Central Asian lutes were of many kinds; the guitar shape is found in examples dating from the 1st to the 4th century CE. The type is not met again until its appearance in Byzantine miniatures of the 11th century as a bowed instrument, and from this time the guitar form was similarly depicted in medieval iconography (*see* FIDDLE). Plucked lutes appeared in a variety of shapes in the Middle Ages; some citoles (which were plucked with a plectrum) approach guitar shape and are depicted with frets (*see* CITOLE).

The history of the guitar in Europe can be traced back to the Renaissance. Guitars from this period were constructed with both curved and flat backs and the main identifying feature of the Renaissance guitar is the characteristic outline of its frontal aspect, a shape it shared with the vihuela.

Instrument names related to 'guitar' occur in medieval literature from the 13th century onwards, but many are now thought to refer to the gittern, which differed in several respects from the Renaissance guitar (for a discussion of some of these early names, *see* GITTERN). However, the late 15th-century gittern was, according to Tinctoris (*c*1487), tuned 4th–major 3rd–4th, a tuning used also for the contemporary four-course lute and some four-course guitars. Iconographical evidence suggests that the extension of the range of the European lute dates from the beginning of the 15th century (paired strings having been introduced in the 14th). A fifth course was added in the treble, and later in the 15th century a sixth course was added in the bass, resulting – to judge partly by 16th-century musical evidence – in the tuning *G/g–c/c′–f/f′–a/a–d′/d′–g′*. This interval pattern, but with all the courses tuned at unison, was shared by the *vihuela de mano*, which replaced the lute in Spain. 'Vihuela' was first qualified by *de mano* (finger-plucked) in the 15th century; earlier related names were *Vihuela de peñola* and *vihuela de arco*. It seems clear that the finger-plucked vihuela was an adaptation of the guitar-shaped bowed instrument. The basic form was retained, but features better suited to a plucked instrument were adopted, namely a lute-type bridge and a central rose.

It was also during the 15th century that the Renaissance four-course guitar appeared, an instrument which had much in common with the lute and the vihuela. The strong influence from these two instruments is attributable to their artistic superiority to the guitar: the wider range afforded by their extra strings would have allowed more ambitious music to be played on or composed for them. Depictions of the four-course guitar from various regions have enough in common to indicate that a single type of instrument had been established in general usage; the complete outline of the guitar is apparent in them all, as are the central rose, the lute-type bridge and frets. In 16th-century depictions the guitarist's right hand approaches the strings from above; no plectrum is used (as this would not allow polyphonic music to be realized). One of the four-course guitar tunings had doublings at the upper octave in the lowest course. Other features of the lute that appeared in the guitar were the rose, the bridge (fixed to the table) and the rounded, ribbed back. The flat back was shared with the vihuela, as was the waisted frontal outline (for illustrations, *see* VIHUELA).

Harvey Turnbull/Paul Sparks

3. The four-course guitar

Typical four-course guitar: title-page of Guillaume Morlaye's 'Premier livre de…

(Fr. *guiterre*, *guiterne*; It. *chitarrino*, *chitarra da sette corde*, *chitarra Napolitana*; Sp. *guitarra de quatro ordines*). 16th-century guitars were much smaller than the modern instrument, and the four-course instrument could be described as a treble guitar. Juan Bermudo (*El libro llamado Declaración de instrumentos musicales*(Osuna, 1555/*R*, chap. lxv) described the guitar as smaller (*mas corto*) than the vihuela and this is borne out both by contemporary iconography (**fig.2**) and by the technical requirements for the left hand in much of the surviving music. In the 16th century even five-course guitars (as opposed to the five-course vihuelas described by Bermudo) seem to have been small instruments. The length of a five-course guitar made by Belchior Dias in 1581 (Royal College of Music, London) is only 76·5 cm. Other features of the 16th-century instrument – shared by other plucked instruments of the period – were a rose, often of intricate construction, instead of an open soundhole; gut frets tied round the neck (eight to ten frets seems most usual); and a bridge set low in the table (this allows the Dias guitar to have a vibrating string length of 55·4 cm).

The basic interval pattern of the gut strings was 4th–major 3rd–4th; there was, however, a variety of tunings applied to the courses. Bermudo described and gave letter names for tunings which result in the following: *g′*/*g*–*c′*/*c′*–*e′*/*e′*–*a′* (*temple nuevos*) and *f′*/*f*–*c′*/*c′*–*e′*/*e′*–*a′* (*temple viejos*). He said that the old tuning (*viejos*) was better for 'old romances and strummed music', and that the new tuning should be preferred for 'modern music'. (The old tuning is found in contemporary French guitar books as 'à corde avalée',*see* **CORDES AVALLÉES**). Both the old and new tunings have the fourth course in octaves; the lower, and thicker, of the pair of strings is called a 'bordón' by the Spanish and a 'bourdon' by the French. The particular stringing arrangement of the fourth course (with the lowest string closest to the third course) is deduced from internal evidence of the instrument's full repertory, and is corroborated both by similar evidence for the five-course guitar (see §4) and the survival of this practice in folk guitars from Spain, Portugal, Brazil etc. Not all music sources require this lower string. Scipione Cerreto (*Della prattica musica*, Naples 1601/*R*) gave a totally re-entrant tuning with no lower octave on the fourth course: *g′*/*g′*–*d′*/*d′*–*f♯′*/*f♯′*–*b′*, that is, Bermudo's *temple viejos* intervals but a tone higher. This tuning is corroborated by an anonymous print of 1645, *Conserto vago*, a suite of pieces for a trio consisting of guitar, lute and theorbo, in which the guitar has to be tuned as above in order to comply with the normal tunings of the other two instruments.

In addition to guitar tunings, Bermudo provided information about how pre-existing vocal and instrumental music could be intabulated for the guitar. He noted (f.xxix*v*), that one could imagine (*ymaginar*) guitars, vihuelas etc. tuned to any desired pitch level, so that even if the written pitches did not happen to fit the actual tuning of the instrument, they would still fit comfortably on the fingerboard. In other words, one could transpose the music to fit on one's instrument. Many modern editors have misunderstood this practical instruction, and have produced editions in which the music is transcribed into unlikely pitches. Bermudo went on to advise the beginner to make fingerboard diagrams for various pitch levels to aid in making intabulations (f.xcvi*v*). It seems clear from his discussion that one size of instrument tuned to one actual pitch level was intended for all the music, and not different size guitars and pitches.

Most of the evidence of iconography, music sources and tuning instructions indicate that the four-course guitar was a small, treble instrument; however, fragments of *An Instruction to the Gitterne* (almost certainly a translation and edition by James Rowbotham (London, *c*1569) of Adrian Le Roy's lost *Briefve et facile instruction pour … la guiterne*, Paris, 1551), gives the tuning pitches in staff notation as *c*–*f*–*a*–*d′*. If taken literally, this implies a larger four-course guitar. Michael Praetorius (*PraetoriusSM*, ii), who is likely to have consulted one of these prints, cites the same pitches. But as this is the only evidence for a larger instrument, the possibility of a printing error in the Rowbotham print must be considered. The C clef in the tuning chart appears on the fourth line, but may have been intended for the second; in which case, the tuning would be the same as Bermudo's *temple nuevos*. Certainly, all present evidence suggests that from the mid-17th century the term 'gittern' was used in England to refer to a small, treble instrument (although, by this time, but not before, there is evidence that it may have pertained to a wire-strung, cittern-like instrument).

In the performance of polyphonic music guitar technique was similar to that of the lute and vihuela; the right hand was supported by the little finger resting on the bridge or on the table, and the production of sound was generally achieved by the thumb and first two fingers plucking the strings. Such a position was made possible by the low height of the strings over the table, which itself lay flush with the fingerboard. Music was notated in tablature. The various systems used four lines to represent the courses; in music printed in Spain and Italy the lowest line represents the highest-sounding course (establishing a physical correspondence between the instrument in playing position and the music), while this is reversed in French sources (establishing an intellectual relationship between the highest line and the higher sounds). The Spanish and Italian systems use numbers to indicate the frets to be stopped (0, open string; 1, first fret etc.); the French system uses letters (*a*, open string; *b*, first fret etc.). Rhythm is indicated by note values above the 'staff'; these follow the quickest-moving part, so longer-held notes have to be inferred by the performer. Although Bermudo gave advice on locating notes that might not be obtainable in some positions because of ostensibly Pythagorean tuning systems, guitar tablature is actually based on a temperament with most of the semitones equal in size.

The earliest surviving music for the four-course guitar appears in Alonso Mudarra's *Tres libros de musica en cifras para vihuela*

(Seville, 1546/*R*): four fantasies (one in the *viejos* tuning), a 'pavana' and a setting of *O guardame las vacas*, which uses the romanesca ground. The music is of the same high quality as Mudarra's vihuela music, which comprises the bulk of the collection. The earliest Italian source is Melchiore de Barberiis's lutebook *Opera intitolata contina … Intabolatura di lauto … libro decimo* (1549[3-9]) in which are found four 'fantasias' for guitar. These are actually light dance pieces; one of them was reprinted by Guillaume Morlaye (1553[3-4]) as a 'branle'.

Typical four-course guitar: title-page of Guillaume Morlaye's 'Premier livre de…

It was in France that music for the four-course instrument flourished. Beginning with the (lost) first book of Guillaume Morlaye (1550), a series of guitar books published by the printers Granjon and Fezandat included music by Morlaye (book 1, RISM 1552[32]/*R*, see **fig.2**; book 2, 1553[3-4]/*R* (Fezandat alone); book 4, 1552[33]/*R*(Fezandat alone)) and Simon Gorlier (book 3, 1551[22]/*R*). A concurrent series was published by the printers Le Roy and Ballard with music by Le Roy (book 1, 1551[23]/*R*; book 2, 1555/*R*; book 3, 1552/*R*; book 5, 1554[33]/*R*) and Grégoire Brayssing (book 4, 1553/*R*). The repertory in these publications comprises a wide range of material from simple dance settings and intabulations of chansons to rather fine fantasias. Some of the dance settings have virtuoso divisions and the fantasias include four by the famous lutenist Alberto da Ripa which compare favourably with his best lute fantasias. Le Roy's second and fifth books are entirely for solo voice and guitar. Among Spanish sources Miguel de Fuenllana's vihuela collection *Orphenica lyra* (Seville 1554/*R*) also contains guitar music, including Juan Vasquez's *Covarde cavallero*and a *romance*, *Passavase el rey moro*, both for voice and guitar (the vocal line is indicated by red ciphers within the tablatures). There are also six fantasias and a setting of 'Crucifixus est'. In England and elsewhere the four-course instrument also enjoyed some popularity. In addition to Rowbotham's *An Instruction to the Gittern*, there are some English lute manuscript sources which contain samples of four-course guitar tablature (***GB-Lbl*** Stowe 389; ***GB-Lbl*** Add.30513; ***US-NH***'Braye lutebook' (ed. in Ward, B1992)). Phalèse, who was active in Leuven, printed two collections for the instrument (1570[3-5], 1573, lost). Much of the music in the first book was taken from the earlier French publications. The instrument was widely used in Italy, and a number of Italian manuscript sources from the late 16th and early 17th centuries survive in European libraries. (For an extensive listing of guitar sources see Tyler, A1980, pp.123–52).

Although the four-course instrument is generally regarded as a Renaissance guitar because of its 16th-century repertory, it continued to be widely used, mainly for playing popular music, throughout the 17th and 18th centuries. Agostino Agazzari (*Del sonare sopra 'l basso*, Siena, 1607) recommended its use in a continuo ensemble; the 1645 *Conserto vago*collection has already been mentioned. Pietro Millioni (*Corona del primo, secondo, e terzo libro*, Rome, 1631) provided a chord chart for the four-course as well as for the larger, five-course guitar, and thus provided a clue as to its use in the enormous repertory of strummed guitar music. In London, John Playford published *A Booke of New Lessons for the Cithern and Gittern* (?2/1652), half of which is devoted to English popular tunes arranged for a small instrument tuned to guitar intervals. It is not clear whether this instrument, the gittern, is wire-strung like the cittern or whether the term 'gittern' was still used at this late date to indicate the guitar.

All known editions of Joan Carles Amat's *Guitarra española*from 1626 to *c*1819 (1st edn, ?1596, lost) contain a chapter on the four-course guitar, indicating perhaps the little instrument's continued, if limited, use into the 19th century. In Spanish and Portuguese cultures, both in the Old and New Worlds, small treble guitars have been in use and continue in use to the present day. The modern ukulele tuning *g′–c′–e′–a′* is the same as Bermudo's tuning (without a *bordón*), and the alternative ukulele tuning *a′—d′–f♯′–b′* is remarkably similar to Cerreto's re-entrant tuning of 1601.

James Tyler

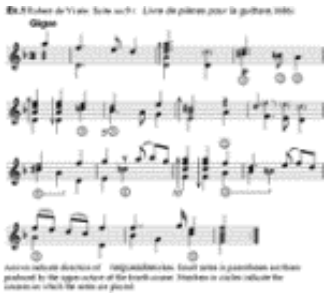
4. The five-course guitar

(It. *chitarra spagnuola*; Sp. *guitarra*). Iconographic sources confirm that five-course guitar-like instruments were in use from at least the end of the 15th century, especially in Italy. The Italian term 'viola' was applied to these as well as to instruments with six and seven courses. The terms 'viola' and 'viola da mano' (and their Spanish equivalent 'vihuela') were often used generally to mean instruments of this general type and shape; sometimes the small four-course instrument was also included. Fuenllana (f.IV), for example, wrote about the 'vihuela de Quatro Ordenes, Que Dizen Guitarra'. He also printed the earliest known music for a five-course instrument ('vihuela de cinco ordenes'), fantasies and vocal intabulations that require an instrument tuned to guitar intervals (starting from the fifth course; 4th–4th–major 3rd–4th), though he made no mention of specific pitches or stringing. Bermudo referred to a 'guitarra de cinco ordenes', saying that one could be made by adding to the four-course guitar a string a 4th above the existing first course (f.xxviii*v*). He also described new and unusual tunings for it as well as for a 'guitarra grande' of six courses and for the four-course instrument. No music survives for any of these tunings. The previously

described Dias guitar could be an example of Bermudo's 'guitarra de cinco ordenes' (later Italian sources call this type of small instrument a 'chitarriglia').

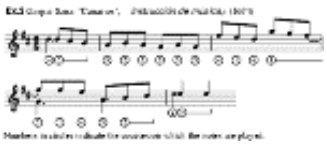
A French source, the drawings of Jacques Cellier (*Recherches de plusieurs singularités*, *c*1583–7; **F-Pn** fonds fr.9152), shows a four-course instrument (seven strings) with a tuning chart for a five-course instrument: *g*–*c*/*c′*–*e*–*a*–*d′* (octave stringing is shown only for the fourth course). This re-entrant tuning would be, if the third course were raised a semitone, a typical stringing arrangement (with its bourdon on the fourth course) for the playing of much of the later Italian and French 'art' music written for the guitar. A first course at *d′* was fairly common (see, for example, Benedetto Sanseverino, *Intavolatura facile* (Milan, 1620)), though a first course at *e′* was to become the standard. Spanish sources often recommended *bordónes* on both the fourth and fifth courses, especially if the guitar was to be used only for strumming. The earliest known edition of Amat's booklet on the guitar (1626) gives the following tuning:*A*/*a*–*d*/*d′*–*g*/*g*–*b*/*b*–*e′*; one assumes that the lost first edition (?1596) gave the same information.

From the 17th century, tuning information frequently indicated no bourdons at all. This produced a totally re-entrant tuning: *a*/*a*–*d′*/*d′*–*g*/*g*–*b*/*b*–*e′* with the lowest pitch that of the third course (see, for example, Luis de Briçeño:*Método … para aprender a tañer la guitara a lo español* (Paris, 1626/*R*); Marin Mersenne: *Harmonie universelle*, ii (Paris, 1636–7/*R*); Francesco Valdambrini:*Libro primo d'intavolatura di chitarra* (Rome, 1646), *Libro secondo* (Rome, 1647); Antoine Carré: *Livre de guitarre*(Paris, 1671/*R*); Gaspar Sanz: *Instruccíon de música sobre la guitarra española* (Zaragoza, 3/1674)). Two Italian sources for this re-entrant tuning offer another variant: *a*/*a*–*d′*/*d*–*g*/*g′*–*b*/*b*–*e′* with an upper octave on the third course (**I-MOe** Campori 612.X.L.10.21 and **I-Bc** AA360). The most common modification to the re-entrant type tuning was *a*/*a*–*d′*/*d′*–*g*/*g*–*b*/*b*–*e′* which, judging by the musical requirements of their tablatures, was used by the leading composers of guitar solos of the time: Francesco Corbetta, Angelo Michele Bartolotti, Giovanni Battista Granata, Robert de Visée (**ex.1**), Ludovico Roncalli, and others.



Ex.1 Robert de Visée: Suite no.9 (Livre de pièces pour la guittare, 1686)

The reason for these re-entrant tunings becomes clear from the original tablatures: in much of the 'art' music for guitar (as opposed to exclusively strummed music), the high, re-entrant fifth course was used melodically in scale passage-work in conjunction with the other treble courses; rarely was the fifth course used as a bass. The fourth course too was used most often in the same fashion as the fifth. A typical idiom was that which Sanz called 'campanelas' (little bells): as many open strings as possible were employed in the notes of scale passages, so that the notes rang on, one melting into the next in the manner of a harp or bells (see **ex.2**). Even when a bourdon was used on the fourth course the stringing arrangement was technically important, with the upper octave string placed nearest the fifth course and the bourdon nearest the third course; this allowed the player the choice of striking the upper of the pair alone (needed most frequently), or including the bourdon when the music required the lower octave. This stringing was mentioned by Lucas Ruiz de Ribayaz, Antonio Stradivari and Denis Diderot among others and is shown in a number of iconographical sources.



Ex.2 Gaspar Sanz: 'Canarios', Instrucción de música, i (1674)

It was up to the player to decide which of the variety of possible tunings and stringings was suitable for each source of music; this was not always easy. In general, the sources for exclusively strummed music could be used with any tuning because questions of proper chord inversions and harmonic niceties were rarely touched upon in this repertory. For much of the mixed style of guitar music, which used **PUNTEADO** (It. pizzicato) technique, some strummed chords (Sp. **RASGUEADO**; It. **BATTUTO**, *battente*), and frequent *campanela* passages (found in the most important Italian and French sources), a re-entrant tuning, usually with a bourdon on the fourth course, was suitable. Occasional sources such as Francisco Guerau's *Poema harmónico* (Madrid, 1694/*R*) seem to require bourdons on the fourth and the fifth courses.

With its unique tunings and its emphasis on brighter, higher-ranged music, in an idiom generally quite unlike that of the lute or any other plucked instrument of the time, the five-course guitar was very different from the modern guitar. Only from the middle of the 18th century did the character of the guitar begin to approach that of the instrument we know today in its development of

a bass range and its playing technique. Average measurements of the five-course Baroque guitar were: overall length 92 cm; string length 63–70 cm; widths 20 cm–17 cm–24 cm; depth varied according to whether the back was flat or rounded (vaulted). The five-course guitar retained features of the smaller, four-course instrument, but curved pegboxes with laterally inserted pegs no longer appeared.

Although many guitars had rounded backs, this feature alone does not identify the later, special type of guitar known today by its 19th-century name, the *chitarra battente*. Developed in the mid-18th century along the lines of the newly perfected Neapolitan mandolin, the instrument usually had a deeply vaulted back, but metal rather than gut strings and frets. The strings passed over a movable bridge and were fixed at the bottom of the body. Like the Neapolitan mandolin, the table of the *chitarra battente* was canted downwards from the bridge instead of being completely flat as on the gut-strung guitar. Although it generally had paired strings, the*chitarra battente* could also have three strings to a course. It seems to have been used primarily for popular music accompaniments, and was probably played with a plectrum. There is no known repertory for it, although the parts in *alfabeto* notation for the ‘chitarr’ a battendo’ that accompanies the ‘chitarr’ a penna’ (an eight-course instrument most likely to have been a Neapolitan *mandolone*) in a mid-18th century, possibly Neapolitan manuscript may be for the *chitarra battente* (***I-Mc*** Noseda 48A).

Many Baroque guitars have survived, particularly the highly decorated ones, which were more likely to be preserved by collectors than the plainer models. A survey of contemporary pictures reveals that instruments made of plain woods and with relatively little decoration were more common. In museum collections there are many instruments by makers such as Matteo and Giorgio Sellas, Giovanni Tessler, René and Alexander Voboam, Joachim Tielke and Antonio Stradivari. The two surviving instruments by Stradivari are beautifully proportioned with little decoration, though their plainness has been heightened over the years by the removal of decorative details such as the traditional ‘moustaches’ on either side of the bridge.

The earliest notation specifically for the five-course guitar dates from the latter part of the 16th century, when a new symbol system developed to represent complete, five-note chords. It seems to have first appeared in an Italian manuscript (***I-Bu*** 177 iv), which contains the top parts of madrigals and canzonettas from the 1580s by such composers as Marenzio and Vecchi. There, lower case letters of the alphabet representing specific chords are found about the words and at places where there are changes in the harmony. Other early Italian sources (all song manuscripts) include one supposedly copied *c*1595 by Francesco Palumbi (***F-Pn*** Español 390), and one dated 1599 (***I-Rvat***Chigiani L.VI.200). These contain mostly Spanish texts, but use the Italian letter (*alfabeto*) notation. There are some Spanish sources for the chord system, e.g. Amat’s (lost) booklet of 1596 (and its 17th-century reprints) and Briçeño (1626), in which the chords are symbolized by numbers instead of letters. The number notation is rarely encountered, while Italian*alfabeto* became the standard chord notation. Radically different from any previous type of notation, this system, which implied that the performer was to think only in terms of vertical block harmonies (as modern rhythm guitarists do), developed in conjunction with the rise of Italian monody. Indeed, some of the earliest manuscript sources of monody by such composers as Peri and Caccini (for example, ***I-Fc*** Codex Barbera G.F.83) contain *alfabeto*. It is, perhaps, significant also that in the 1589 Florentine *intermedi*, a major landmark in the development of the new monodic style, two guitars were used in Cavalieri’s famous *Ballo del Gran Duca*, a piece which remained popular for at least another century.

The first appearance in print of the *alfabeto* system was Girolamo Montesardo’s *Nuova inventione d’intavolatura per sonare li balletti sopra la chitarra spagnuola, senza numeri e note* (Florence, 1606). During the early 17th century an abundance of guitar books appeared in print using only this system for strummed chord solos (many of the pieces could also be considered accompaniment parts for use in ensembles). The important writers of *alfabeto* books were: Foriano Pico (1608), G.A. Colonna (1620, 1623, 1637), Sanseverino (1620), Carlo Milanuzzi (1622, 1623, 1625), Millioni (1624, 1627), Millioni and Lodovico Monte (*c*1627, 1637, 1644, etc.), G.B. Abatessa (1627, 1635, *c*1650, 1652), G.P. Foscarini (1629), Tomaso Marchetti (1635), Corbetta (1639), Agostino Trombetti (1639), Antonio Carbonchi (1643), Carlo Calvi (1646), Giovanni Bottazzari (1663), Giovanni Pietro Ricci (1677) and Antonio di Michele (1680); for full details of second and subsequent editions of many of these collections see Tyler, A1980, pp.123–58. The last known *alfabeto* book was an edition of Millioni and Monte’s 1637 book in 1737.

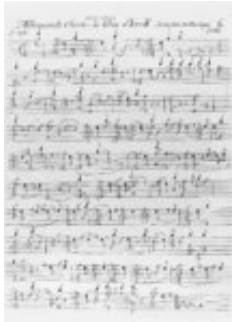
In addition to the *alfabeto* sources of guitar solos, there is an enormous body of publications of Italian arias employing the guitar as the instrument to accompany the voice. In this repertory are found publications by many of the major vocal composers of the time, such as Stefano Landi (1620, 1627) and Sigismondo d’India (1621, 1623), and several books by Andrea Falconieri, G.G. Kapsperger, Milanuzzi, G.B. Vitali, Biagio Marini, Guglielmo Miniscalchi, Allessandro Grandi (i), and others. In the collections with contributions by various composers are found five arias by Monteverdi (Milanuzzi, 1624, RISM 1634[7]) all unique to these prints, as well as arias by Frescobaldi (*VogelB* 1621²), Domenico Mazzochi (RISM 1621¹[6]) and Cavalli (RISM 1634[7]). The subject of guitar accompaniment in this important 17th-century aria repertory has yet to be studied thoroughly, and the role of the guitar as a widely used continuo instrument has not been sufficiently stressed.

Technique of playing the guitar near the bridge (for punteado playing), and above the rose (for strumming): two sketches of a guitarist by Antoine Watteau, chalk, early 18th century (British Museum, London)

In addition to devising accompaniments from the harmonic indications of the*alfabeto*, 17th-century guitarists also learnt to read and improvise a**CONTINUO** accompaniment from the bass line (both with and without figures). Although the Baroque guitar was often unable to sound the true bass note because of its tunings, an idiomatic continuo accompaniment could be realized for the proper harmonies. The true bass line was played by an appropriate instrument such as a theorbo or cello. The preface of most of the aria books gives a chart instructing the guitarist on how to read from the bass, but many of the books of solos give far more detailed instructions. Corbetta's books of 1643 and 1648 give continuo-playing information, as do Foscarini's of 1640. Sanz devoted an entire section of his book to guitar continuo playing and Santiago de Murcia's *Resumen de acompañar la parte con la guitarra* (Madrid, 1717/*R*) was, as its title suggests, in large part devoted to instruction in guitar continuo playing. But the most thorough and extensive instructions of all appeared in Nicola Matteis's *Le false consonanse della musica*(London, *c*1680) and the later English edition *The False Consonances of Musick* (1682/*R*). This tutor for guitar continuo playing is one of the most useful and detailed of any 17th century continuo treatise for any instrument (including keyboard).

As well as the strummed style of guitar music found in the *alfabeto*sources of the early 17th century, a new style of guitar music began to appear in print from about 1630 with Foscarini's second and third books (published together, n.d.). Although one of the chief assets of the guitar was its ability to play block chords in a rhythmic strumming style (this was considered to be the true idiom of the guitar), Foscarini adapted lute tablature and technique in combination with the strummed chords to arrive at a mixed style of solo guitar writing. In his preface he was apologetic about the lute-like elements. It was this new mixed style that was used by the finest guitar composers of the 17th century and the early 18th. Although Corbetta included some very fine solos in his 1639 book, it was A.M. Bartolotti who, in 1640, produced the first fully developed, masterful examples of the new idiom, and his second book (*c*1655) contained some of the finest Baroque guitar music of the 17th century. It was Corbetta, however, who became the best-known Italian guitar composer, with his publications of 1643 and 1648, which contained music of the highest order. Other major Italian writers for the guitar were Granata (1646, *c*1650, 1651, 1659, 1674, 1680, 1684), Valdambrini (1646, 1647), Domenico Pellegrini (1650), Francesco Asioli (1674, 1676), Matteis (*c*1680, 1682) and Roncalli (1692). It is ironic that, although the guitar was known as a Spanish instrument, it was in Italy that its repertory was first developed.

In France the five-course guitar was not held in high esteem initially. Both Mersenne and Pierre Trichet referred to it in disparaging terms, and the general opposition is mentioned in Briçeño's *Método… para aprender a tañer la guitara* (1626), a work advocating the chordal style of performance. Briçeño's book did not succeed in popularizing the instrument, and only later in the century did further publications appear. These reflect an interest in the guitar in court circles engendered by Corbetta, whose *La guitarre royalle* of 1674 was dedicated to Louis XIV. Although the *rasgueado* style is a strong feature of the pieces in the book, the alphabet has been abandoned and greater freedom achieved by indicating the notes of the chords individually. Corbetta was succeeded by Robert de Visée (?*c*1655–1732/3), who was formally appointed guitar tutor to the king in 1719. His *Livre de guittarre dédié au roy* was published in 1682, and a second work, *Livres de pièces pour la guittarre*, appeared in 1686; both contain suites of various length, made up of an introductory prelude followed by dances – allemande, courante, sarabande, gigue, passacaille and others. Visée also produced a collection of pieces for theorbo and lute, and left a number of works in manuscript. Rémy Médard, in his *Pièces de guitarre*(1676), acknowledged his debt to Corbetta, who taught him, but like Visée he cultivated a more delicate style. A concern with melodic and contrapuntal movement is also evident in *Nouvelles découvertes sur la guitare*(op.1, 1705) by François Campion (*c*1685–1747).



Page from Francesco Corbetta's 'La guitarre royalle' (Paris, 1671), engraved…

Corbetta's first *La guitarre royalle* (1671; **fig.4**) was dedicated to Charles II of England, who was an enthusiastic performer. The guitar was extremely fashionable in England; Corbetta, who went to England in the early 1660s and counted many of the nobility among his pupils. However, some distaste for the instrument was expressed, and Pepys, for one, held the guitar in low esteem. (The inclusion in Pepys's library, which survives intact in Cambridge (***GB-Cmc***), of a manuscript by guitar tutor Cesare Morelli, and the evidence of his own compositions for guitar and voice (written out for him by Morelli), suggests, however, that he was eventually won over by the instrument.) The distinction drawn by William Turner (i) in 1697 between the 'brushing way' and the 'pinching way' indicates that, as well as Corbetta's more complex music, there was no lack of strumming in England. Indeed it is likely that a lost work, *Easie Lessons on the Guitar for Young Practitioners*, recorded in 1677 as by Seignior Francisco, was by Corbetta himself. In 18th-century England the guitar went out of fashion. It was replaced by the **ENGLISH GUITAR**,

which had little in common with the guitar proper, being similar in shape to the cittern and having metal strings tuned *c–e–g–c′–e′–g′*.

The five-course guitar was first known in Germany as an instrument for strumming. Praetorius so described it, but he also related that ‘it can be used to good effect in other graceful *cantiunculae* and delightful songs by a good singer’. Later in the century the guitar appeared in consort with the lute, angélique and viol, accompanying a collection of songs by Jakob Kremberg, *Musicalische Gemüths-Ergötzung* (Dresden, 1689).

Corbetta’s presence in the Netherlands is attested by his *Varii scherzi di sonate per la chitara spagnola*, published in Brussels in 1648. The interest engendered by Corbetta was maintained through the 17th century, although native sources are lacking until the following century, when François le Cocq’s *Recueil des pièces de guitarre* appeared (*c*1729). As well as Le Cocq’s compositions, the collection contains works by Corbetta, Sanz, Visée, Granata and other 17th-century guitarists (added by Jean-Baptiste Castillon, to whom Le Cocq had dedicated the book). A mid-18th-century manuscript collection from the Netherlands is the so-called*Princes An’s Lute Book*, for five-course guitar (***NL-DHgm***4.E.73).

Despite its title, a late 17th-century Spanish source by Antonio de Santa Cruz, *Música de vihuela* (***E-Mn*** M.2209), is not to be compared with the 16th-century vihuela books, as its contents consist of 17th-century Spanish dances notated in five-line tablature. It includes the chord alphabet and was obviously intended for the five-course guitar. The most important source of guitar music in 17th-century Spain is the *Instrucción*by Gaspar Sanz, eight editions of which appeared between 1674 and 1697. Sanz, in his preface, states that he went to Italy to study music and became an organist in Naples. He later went to Rome where he studied the guitar with an important composer of the time, Lelio Colista (some of whose guitar music survives in ***B-Bc***, littera S no.5615). He also states that he studied the works of Foscarini, Granata and Corbetta. There are many Italian as well as Spanish dance pieces in his publications and he employs a mature and fully integrated style of mixed writing with an equal balance of strummed chords and *punteado* style, especially in his later *passacalles* of 1697.

The *Luz y norte musical* (Madrid, 1677) by Lucas Ruiz de Ribayaz is a work devoted to the guitar and the harp; most of the guitar music was plagiarized from Sanz. Guerau’s book of 1694 is notable for containing music in an almost totally *punteado* style, quite different from Sanz and the majority of other guitar composers. Other Spanish sources are Santiago de Murcia’s *Resumen* (1714), his manuscript *Passacalles y obras*(1732, ***GB-Lbl*** Add.31640) and his manuscript collection of dance variations (Archive of Elisa Osorio Bolio de Saldívar, Mexico City, Codice Saldívar, 4), which contains music of a very high standard; Murcia’s own *prelidios* tend to be both original and masterful, though a study of concordances reveals that the majority of pieces in these two works are actually arrangements of French court music, many of pieces by Lully as well as Le Cocq and Corbetta.

The music for the five-course guitar discussed so far can be regarded as the ‘classical’ repertory for the late Renaissance and Baroque instrument. On the whole, this music calls for the characteristic re-entrant tunings that were so important to the playing style and idioms employed during these periods and which made the guitar unique. But the nature of the guitar changed noticeably in the middle of the 18th century, along with musical styles in general. The change seems to have occurred first in France, where the guitar began to be used primarily to accompany the voice, using an arpeggiated style similar to that of keyboard instruments. The new style required true bass notes and as early as 1764 (*Journal de musique*, April) instructions for proper accompaniments stressed the use of a bourdon on the fifth course. The appearance of many guitar tutors in France between 1763 and *c*1800, all for a five-course guitar tuned *A/a–d/d′–g/g–b/b–e′*, as well as the gradual abandonment of tablature in favour of staff notation, leaves little doubt that the guitar was becoming an instrument much closer in character and playing styles to the modern guitar than to the Baroque instrument. Soon, even the double courses in octaves were abandoned in favour of single strings and, as early as 1785, a sixth string was indicated (*Etrennes de Polymnie*, Paris, 1785, p.148).

Historical statements referring to the guitar as an easy instrument should be treated with caution. Such a dismissive attitude is valid only when it is directed towards the guitar at its simplest level. The judgment is certainly not true in the context of art music, where textures more complex than a series of chord patterns demand accuracy of fingering and a high degree of coordination. These are of particular importance for the Baroque five-course guitar, which, though first used as a popular instrument, later gave rise to a literature that presents textures similar to those of the lute. Five-course guitar music has yet to be heard widely on the instrument for which it was written. Performance on the modern guitar is only an approximation of the original sound, as modern stringing and tuning does not allow the music to be realized faithfully.

James Tyler

5. The early six-string guitar.

The transition from the Baroque five-course guitar to a recognizably modern instrument with six single strings took place gradually during the second half of the 18th century and the first decades of the 19th century in Spain, France and Italy. A deep-bodied instrument in the Gemeentemuseum (The Hague) labelled 'Francisco Sanguino, me fecit. En Sevilla año de 1759' is the earliest known six-course instrument, and is also notable for pioneering the use of fan-strutting to strengthen the table. Documents relating to the sale of musical instruments in Spain show that the six-course guitar became increasingly common from 1760 onwards, steadily superseding the five-course instrument, and was the most common form of guitar through Iberia by the 1790s. In Paris, the Italian-born guitarist Giacomo Merchi was still recommending the traditional five double-course in *Le guide des écoliers de guitarre* (*c*1761), but by 1777 (in his *Traité des agréments de la musique exécutés sur le guitarre*) was advocating 'my manner of stringing the guitar with single strings … single strings are easier to put in tune, and to pluck cleanly; moreover, they render pure, strong and smooth sounds, approaching those of the harp; above all if one uses slightly thicker strings'. Many of Merchi's Parisian contemporaries still favoured five double-courses – for example Bailleux (1773) and Baillon (1781) – while six double-courses remained the standard form of stringing in Spain well into the 19th century, and it seems to have been guitarists from Italy and southern France who were primarily responsible for the introduction of single strings, preferring the unambiguous bass notes that they produced, and initially using them on instruments originally intended for double-courses. By 1785, makers in Marseilles and Naples were building guitars specifically intended for six single strings (the often-repeated claim that Naumann, Kapellmeister at Dresden, was responsible for the addition of the lower E string at some point after 1688 can therefore safely be dismissed), and this new design gradually came into general use throughout much of Europe.

Changes in the basic instrument were many, and the guitar lost much that it had in common with the lute, establishing during the early decades of the 19th century the form that was to develop into the modern guitar. Machine heads were used instead of wooden pegs, fixed frets (first ivory or ebony, then metal) instead of gut; an open soundhole replaced the rose; the bridge was raised to a higher position (and a saddle and pins introduced to fasten the strings); and the neck became narrower. The flat back became standard, and proportions of the instrument changed to allow the positioning of the 12th fret at the junction of body and neck. Separate fingerboards were introduced, at first flush with the table, later raised to lie 2 mm or so above it. The rectangular peghead gave way to heads of various designs, often a distinguishing mark of the maker. Generally, lavish decoration disappeared, though some ornate guitars were made in the 19th century and the use of fan-strutting was further developed in six-course guitars made in Cádiz by José Pagés and Josef Benedid. As well as fan-strutting in the lower half of the table, a cross-strutting system appeared in the part of the table above the soundhole. Other important makers of this period were René François Lacôte of Paris and Louis Panormo, active in London.

Instruction books reveal that there was no standard approach to playing technique. Earlier traditions persisted; the right hand was still supported on the table (on some instruments a piece of ebony was let into the table to prevent wear), although Nicario Jauralde (*A Complete Preceptor for the Spanish Guitar*) warned against resting the little finger on the table as this prevents the hand moving for 'changes in Piano and Forte' and inhibits 'the other fingers acting with Agility'. Right-hand finger movement was still confined mainly to the thumb and first two fingers. The technique for attacking the strings was normally *tirando*, with the fingertips rising after plucking; *apoyando*, in which the finger brushes past the string and rests on the string below, was little mentioned and apparently not generally applied. Performers were divided over whether or not to employ the fingernails in the production of sound; Fernando Sor (1778–1839), the leading Spanish player, dispensed with nails, while his compatriot, Dionysio Aguado (1784–1849), employed them. The left-hand thumb was sometimes used to fret notes on the lowest (*E*) string, a technique made possible by the narrow fingerboard. The instrument was held in a variety of ways, and was often supported by a strap round the player's neck; Aguado even invented a special stand – the tripodion – on which to rest the instrument.

Tablature was abandoned in the second half of the 18th century, with staff notation superseding it, at first in instruction books and song accompaniments. The earliest staff notation for guitar evolved in France and in Italy, the notational conventions for violin music being evident in early solo pieces for 6-string – or, as it is now known, classical – guitar. The convention of notating guitar music on one staff headed by the G clef, the actual sounds being an octave below written pitch, is still in use.

The first published music for six-course guitar appeared in Spain in 1780, the date of *Obra para guitarra de seis órdenes* by Antonio Ballesteros. Further methods appeared in 1799: Fernando Ferandiere's *Arte de tocar la guitarra española* and Federico Moretti's *Principios para tocar la guitarra de seis órdenes*. In this latter work, Moretti (a Neapolitan in the service of the Spanish court) provides an insight into the difference between the instruments in general use in Spain and Italy at the end of the 18th century:

> "although I use the guitar of seven single strings, it seemed more appropriate to accommodate these Principles to six courses, that being what is generally played in Spain: this same reason obliged me to publish them in Italian, in 1792, adapted for the guitar with five strings, because at that time the one with six was not known in Italy."

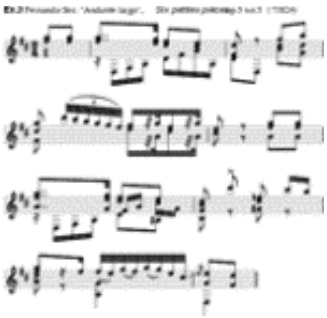
Both Sor and Aguado were indebted to Moretti for making them aware of the possibility of part-writing for the guitar, and the two became very active outside their native Spain. Aguado, whose *Escuela de guitarra* was published in Madrid in 1825, settled for a while in Paris, but Sor pursued the career of a travelling recitalist, bringing the guitar to a much wider audience. Before leaving Spain, Sor had acquired some reputation as a composer; his opera *Telemaco nell'isola di Calipso*was successfully staged in Barcelona in 1796. In Madrid, Sor's patron was the Duchess of Alba. Also living in Madrid was Boccherini, who, inspired by the enthusiasm of his patron, the Marquis of Benavente, made arrangements of several of his quintets to include the guitar.

Sor left Spain in 1813, a move dictated by the political circumstances, and headed for Paris, where he stayed for two years. He visited London, where he gave several recitals, returning to Paris for a production of his ballet *Cendrillon*. The success of this work enabled him to visit Moscow and St Petersburg, where he played before the court. He then returned to Paris and, except for a further visit to London, resided there until his death in 1839. Paris was one of the main centres of interest in the guitar, and several other virtuoso performers settled there, including Matteo Carcassi (1792–1853) and Ferdinando Carulli (1770–1841). The latter was responsible for *L'harmonie appliquée à la guitare* (1825), the only known theoretical work for the instrument of the early 19th century. It is limited in scope, offering not much more than chordal and arpeggio accompaniment, typical of much guitar music of the period. Paganini abandoned the violin for a while in favour of the guitar, for which he composed several works. A French guitar made by Grobert bears the signatures of Paganini and Berlioz. The latter, a competent guitarist, mentioned the instrument briefly in his *Grand traité d'instrumentation et d'orchestration modernes* op.10 (1843), commenting that 'it is almost impossible to write well for the guitar without being a player on the instrument'.

Title-page of Alfred Bennett's 'Instructions for the Spanish Guitar' (London:…

The most important Italian guitarist was Mauro Giuliani (1781–1829). He first achieved fame in Vienna, where he was established from 1806 to 1819. As well as giving solo recitals, Giuliani appeared with the pianists Hummel and Moscheles and the violinist Mayseder. In 1819 he returned to Italy, settling in Rome and later Naples, where he continued to give recitals. His daughter Emilia was also a talented guitarist, and they performed together in public. Vienna, like Paris, had many enthusiastic guitarists, and much simple music was published to cater for the demand: Leonhard von Call produced many pieces of this kind, as did Diabelli. Although Francesco Chabran was teaching (and composing for) the guitar in London during the late 18th and early 19th centuries, it was not until 1815, with the arrival in London of Sor (and of the Italian virtuoso Guiseppe Anelli) that enthusiasm for the instrument became widespread. Numerous tutors were published during the first third of the 19th century (**fig.5**), and the *Giulianiad* (one of the earliest journals devoted to the guitar) appeared in 1833. Although interest waned in the second half of the century, the publications – into the 1890s – of Mme Sidney Pratten (Catharina Josepha Pelzer), the leading English performer, reveal that there was still a public for the guitar used in a facile way. During the final decade of the 19th century and the first decade of the 20th, amateur plucked instrument orchestras enjoyed great popularity throughout Europe and the USA, with dozens of guitars and mandolins (and sometimes banjos) being used to perform original works and transcriptions of light classical music. Britain, France, Germany, Italy and the USA had many hundreds of such orchestras, the best of them competing in national and international festivals.

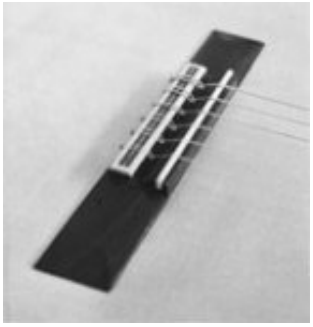
The majority of 19th-century publications were designed to acquaint the public with what was virtually a new instrument; as such many are didactic, and also limited in scope, as it soon became clear that few amateurs were sufficiently dedicated to master the more demanding works of the guitarist-composers. The popularity of the guitar lay in the ease with which one could manage a simple accompaniment to a song, and many of the practical tutors were limited to expounding the fundamental skills needed to achieve this. The simple pieces that take the performer a stage beyond this elementary level contain many clichés and, as they are the products of guitarists, generally lie easily under the fingers. At a higher level are the studies designed to prepare the performer for recital works; most successful in this context are those by Aguado, Carcassi, Napoléon Coste and Sor, all of which are still of great value to students. It is to the guitarists themselves that one must turn for the best compositions from this period. Although composers of stature were acquainted with the guitar, they wrote nothing for it, and Berlioz's criticism of non-playing composers, that they 'give it things to play … of small effect', is valid. The achievements of Sor and Giuliani in establishing a repertory of large-scale works is the most notable feature of this period. Their output ranges from easy pieces – always in demand by the publishers – to extended works for the solo instrument and diverse combinations of instruments. Giuliani composed many variation sets, three concertos (opp.30, 36 and 70), a number of duos for guitar and violin or flute, a work for guitar, violin and cello (op.19), and a set of three pieces for guitar with string quartet (op.65). Sor's textures are sometimes more complex than Giuliani's, and richer in harmonic variety. In his sonatas opp.22 and 25 Sor introduced a larger number of themes than is usual in this form, thereby compensating for the restrictions in development imposed by the limitations of the instrument. His most successful composition was the*Variations on a Theme of Mozart* op.9, a virtuoso showpiece that neatly summarizes the possibilities of early 19th-century classical guitar technique and remains the most frequently performed piece of guitar music of the period. Although they cannot be classed as works of great stature, the compositions of the early 19th-century guitarists are often charming, elegant and vivacious enough to be heard with pleasure (**ex.3**).



Ex.3 Fernando Sor: ‘Andante largo’, Six petites pièces op.5 no.5 (?1824)

Harvey Turnbull/Paul Sparks

6. The modern classical guitar.



Modern bridge on a guitar (‘La Salvaora’) by José Romanillos

The early 19th-century guitar was further developed in the second half of the century by the Spanish maker Antonio de Torres Jurado (1817–92), whose experiments led to instruments that became models for his successors. The guitar thus achieved a standard size and form for the first time in its history. Torres increased the overall dimensions of the instrument and established the vibrating length of the strings at 65 cm; he developed the fan-strutting system introduced by his predecessors in Seville and Cádiz, using a system of seven struts radiating from below the soundhole, with two further struts lying tangentially below the ‘fan’. The modern bridge, with the strings passing over the saddle to be tied to a rectangular block (fig.6) is also attributable to Torres, and has become standard since his time. It is in the strutting that modern makers have experimented most, varying both the number and the pattern of struts, and even extending the system to include the part of the table above the soundhole. Gut strings became obsolete after the introduction of nylon strings in 1946, with players preferring the higher tension and greater durability offered by the man-made material.

For a time the improvements brought about by Torres remained confined to Spain, where a number of distinguished makers succeeded him: Vicente Arias, Manuel Ramirez, Enrique García, Marcelo Barbero and – active in the mid-20th century – José Ramirez, Manuel Contreras, Marcelino Lopez Nieto and others. The revival of interest in the guitar in the 20th century resulted in the appearance of outstanding makers in other countries: Hermann Hauser (Germany), Robert Bouchet (France), David Rubio and Paul Fischer (England), and others in Japan, where the instrument has become extremely popular. Although at the end of the century most makers still built their instruments in the traditional Spanish manner perfected by Torres, leading luthiers in the USA, Australia and Britain had begun in the 1970s to redesign the internal structure of the classical guitar. They aimed primarily to increase the volume of sound a guitar can produce, a consideration of increasing importance as many composers had begun to use the instrument regularly in chamber and orchestral works. For example, the ‘TAUT’ system developed by Paul Fischer used a very light rectangular latticework of spruce struts, running across the grain of the table as well as along its length. This reinforcement permitted the thickness of the table to be greatly reduced (about 1·6 mm, as opposed to about 2·4 mm in a traditional Spanish guitar), resulting in a much greater flexibility. To further increase the effective size of the diaphragm, Fischer also experimented with moving the soundhole to the top of the table, and splitting it into two semicircles. The Australian maker Greg Smallman used a somewhat similar system, although he preferred to place his grid at an angle of 45 degrees to the grain of the table.

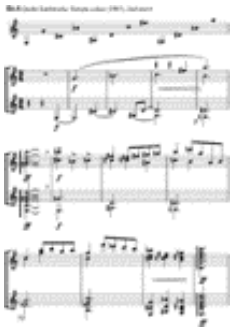
Andrés Segovia, 1963

Francisco Tárrega (1852–1909), though active in promoting the modern playing technique, did not invent the *apoyando* stroke – it is a least as old as Dionysio Aguado. When used on a large instrument, such as the Torres guitar, this technique and the unsupported *tirando* spurred on the development of a rich repertory of original études and transcriptions for the classical guitar (as it was now called). The larger instrument rested more comfortably on the left thigh than the early 19th-century guitar, and it became standard practice to hold it in this way. Tárrega did not use the fingernails in his right-hand technique, and in this he was followed by his pupil Emilio Vilarrubí Pujol (1886–1980), but Miguel Llobet (1878–1938), also a pupil of his, preferred to use them. Segovia adopted a more relaxed right-hand position than that of Tárrega (fig.7) and a technique employing the fingernails, in which he was followed by the majority of other 20th-century recitalists. It is in the right-hand position that one sees most variations among modern performers. The Segovia position entails the strings being sounded by the left side of the nails, whereas the position favoured by the French guitarist Ida Presti (1924–67), adopted by the American recitalist Alice Artzt, brings the right side of the nails into

contact with the strings.

It is thus only during the last 100 years that the guitar has been established in its modern form and its technique developed accordingly. At the beginning of this period it lacked a repertory that would have given it a status comparable with that of other instruments. The problem of a meagre literature was first approached by transcribing works from other media, a practice initiated by Tárrega and continued by his successors. Suitable material was obviously to be found in the repertories for instruments closely related to the guitar (i.e. the lute and the vihuela), but works for bowed instruments, and keyboard, were also featured in recitals. Much more important, however, is the extent to which the guitar's repertory has been enlarged in the 20th century by composers who were not guitarists. Segovia, the leading instigator of this departure from the tradition of guitarist-composers, made it his life-work to raise the guitar's status to that of an internationally respected concert instrument, and his artistry was a source of inspiration both to players and to composers.

In 1920 Falla wrote *Homenaje 'le tombeau de Claude Debussy'* for Llobet, proof of his belief that the guitar 'is coming back again, because it is peculiarly adapted for modern music'. Other Spanish composers have favoured a more nationalist idiom: Joaquin Turina (1882–1949), Federico Moreno Torroba (*b* 1891) and Joaquín Rodrigo (1901–99). All produced works for Segovia, and Rodrigo dedicated compositions to other Spanish recitalists such as Narciso Yepes (1927–97), Manuel Lopez Ramos and the Romero family; his *Concierto de Aranjuez* (1939) was a tribute to Regino Sainz de la Maza y Ruiz (1896–1981). Many concertos were written in the 20th century, the first of them by Mario Castelnuovo-Tedesco (1895–1968) in 1939. Castelnuovo-Tedesco's prolific output for guitar includes a quintet (op.143, 1950) and *Platero y yo* (op.190, 1960) for guitar and narrator; and his works are dedicated to many guitarists: the German Siegfried Behrend (1933–90), the American Christopher Parkening (*b* 1947), the Italian Oscar Ghiglia (*b* 1938), the Venezuelan Alirio Diaz (*b* 1923), the Japanese Jiro Matsuda and others. He also composed several works for guitar duo, including the Concerto for two guitars and orchestra (op.201, 1962). The combination of two guitars allows more complex writing than is possible for the solo instrument (**ex.4**). The duo genre was firmly established in the 20th century by Ida Presti and Alexandre Lagoya, and further consolidated by the Brazilian brothers Sergio and Eduardo Abreu, the Athenian Guitar Duo (Liza Zoi and Evangelos Assimakopoulos), and the French-Japanese combination of Henri Dorigny and Ako Ito. At the end of the century guitar duos and trios were commonly encountered forms of music-making, as were guitar quartets (composed either for four standard guitars, or for *requinto*, two guitars and bass guitar), a form pioneered by Gilbert Biberian (*b* 1944).



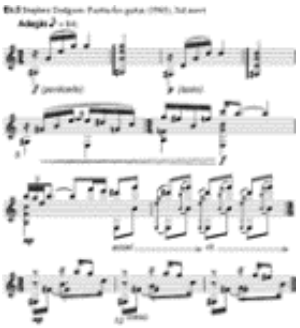
Ex.4 Guido Santórsola: Sonata a duo (1967), 2nd movt

Segovia's influence spread to Central and South America, where the Mexican composer Manuel Ponce (1882–1948) composed sonatas, variation sets and the *Concierto del sur* (1941). Villa-Lobos (1887–1959) also wrote a concerto, but he is better known for his *Douze études*(1929) and *Cinq préludes* (1940). The *Etudes* evidence some progress from 19th-century stereotypes, but formulae are still present, as they are in the preludes. A more lightweight work is his *Chôro no.1*(1920), with its evocations of folk music. The guitar features prominently in South American folk music, which permeates some of the compositions of Antonio Lauro (1917–86) of Venezuela and Agustín Barrios (1885–1944) of Paraguay. The South American repertory was augmented by the Brazilian Francisco Mignone (1897–1986), the Cuban Leo Brouwer (*b* 1939) and Guido Santórsola (1904–94) from Uruguay. Brouwer's music has been particularly influential, especially *La espiral eterna* (1970) and*Elogio de la danza* (1972), both for solo guitar, and his four concertos, although the Sonata op.47 (1976) by the Argentine composer Alberto Ginastera (1913–83) is widely considered the single most substantial work by a Latin American composer. Significant South American performers have included Carlos Barbosa-Lima and Turibio Santos (Brazil) and Oscar Caceres (Uruguay). The almost-forgotten tradition of the composer-guitarist was revived towards the end of the 20th century: notable figures have included Brouwer, the Russian Nikita Koshkin (*b* 1956), the Czech Štěpán Rak (*b* 1945) and the American Stephen Funk Pearson (*b* 1950).

Although the initial impetus came from Spain, the growth of modern guitar music was maintained elsewhere in Europe, with works by Frank Martin, Krenek, Alexandre Tansman, Malipiero, Petrassi, Milhaud, Daniel-Lesur and Poulenc. Despite its limited volume, the guitar played a small but significant role in many 20th-century operas and symphonies, as well as in chamber works such as Schoenberg's Serenade op.24 (1920–23), Boulez's *Le marteau sans maître* (1952–4, rev. 1957), Gerhard's *Concert for Eight* (1962) and *Libra* (1968), and Henze's *Carillon, Récitatif, Masque* (1974). Henze has made frequent use of the guitar and has written several important solo works, including *Drei Tentos* (from *Kammermusik*, 1958) and

two sonatas (based on Shakespearean characters) entitled *Royal Winter Music* (1975–7). In England, where the leading performers at the end of the 20th century were Julian Bream (*b* 1933) and John Williams (*b* 1941), the guitar did not become established in music colleges until 1961. Nonetheless English composers, or composers resident in England, made a significant contribution to the repertory. Concertos appeared by Malcolm Arnold, Stephen Dodgson, Richard Rodney Bennett and André Previn, and the solo literature was enriched by works from Britten (*Nocturnal after John Dowland*, 1963), Berkeley (Sonatina op.52/1, 1957, Theme and Variations op.77, 1970), Dodgson (Partita, 1963, Fantasy-Divisions, 1973), Tippett (*The Blue Guitar*, 1985), Walton (*Five Bagatelles*, 1970–71) and others. The guitar was also used effectively as an accompaniment to the voice; settings include*Songs from the Chinese* (Britten, 1957), *Cantares* (Gerhard, 1956), *Five Love Songs* (Musgrave, 1955) and *Anon. in Love*(Walton, 1959). John W. Duarte (*b* 1919) was a significant influence in the development of the guitar repertory, notably for his transcriptions of the Bach cello suites but also for some attractive original compositions (such as his*English Suite* op.31 (1967), written for Segovia).

The 20th-century repertory exhibits a wide variety of textures and styles, ranging from the predominantly tonal, romantic works inspired by Segovia to avant-garde compositions. Influences from folk music, flamenco and jazz can be found; and experimenters have introduced unexpected sonorities and extended the instrument's percussive and idiophonic resources. In Petrassi's *Suoni notturni* (1959), for example, the performer is instructed to sound notes by pulling the strings so that they slap against the frets; elsewhere sounds produced by tapping on the table are alternated with normally played sounds. Koshkin's half-hour epic *The Prince's Toys* was composed to include as many unusual effects as possible, and produces a remarkable range of sounds. Atonal writing and serial techniques were given expression on the guitar – evidence of its viability in contemporary music. One of the most interesting aspects of the history of the guitar in the 20th century is the extent to which its literature was vitalized in the transition from music composed by guitarists (or written to the restrictions of a guitarist) to compositions not determined by a conventional conception of the instrument's possibilities (**ex.5**). This has led to the appearance of works of considerable stature and the growth of an artistic compositional tradition such as eluded the guitar until the 20th century.



Ex.5 Stephen Dodgson: Partita for guitar (1965), 3rd movt
Oxford University Press

Harvey Turnbull/Paul Sparks

7. Variants of the classical guitar.

Instruments departing from the basic form of the guitar first appear in 1690, when Alexandre Voboam constructed a double guitar, which had a small guitar attached to the treble side of a normal instrument. However, the 19th century was a more productive period in this respect. A double-necked guitar – *Doppelgitarre* – was made by Stauffer in 1807; and in the 1830s Jean-François Solomon constructed a guitar with three necks – the 'Harpo-lyre' – which, like a number of 19th-century variant guitars, was designed to improve what was felt to be an unsatisfactory instrument. About 1800 the **LYRE GUITAR**enjoyed a brief vogue. Methods and music were published for this instrument, which had two curved arms (recalling the Ancient Greek lyre) in place of the upper bout. In another group of instruments the number of strings was increased, sometimes in the bass, sometimes in the treble, and one instrument – the 'guitarpa' – had both extra bass and extra treble strings. The 19th century saw the introduction of guitars that varied in size and hence in pitch. These were the *quinte-basse*, *quarte*, *terz* and*octavine* guitars; only the *terz* guitar, tuned *G–c–f–b*♭*–d′–g′*, has a literature. In the 1960s Narciso Yepes introduced a ten-string guitar, the added strings lying in the bass, with the tuning *G*♭*–A*♭*–B*♭*–C–E–A–d–g–b–e′*. This tuning permits sympathetic bass-string resonances for every note in the upper range of his guitar. A new 'harp guitar' (differing from the early 19th-century instrument combining a short, thick guitar neck with a vaulted-back soundbox and primarily triadic stringing; *see***HARP-LUTE (II)**) gained some popularity around 1900. Such instruments, which had an extra body 'arm' extension with additional sympathetic bass strings, were made especially in the USA, by makers such as Gibson, Larson Brothers and Knutsen.

Of 20th-century variants, the flamenco guitar is closest to the classical instrument. As the traditional posture of the flamenco guitarist necessitates holding the instrument almost vertically, it is desirable to restrict weight; hence Spanish cypress, a lighter wood than rosewood, is used for the back and sides, and gradually from the 1970s machine heads were used instead of wooden pegs. The string action is often lower than that of the classical guitar, allowing the strings to buzz against the frets. A plate is positioned on the table to protect the wood from the tapping of the right-hand fingers. Although the original function of the flamenco guitar was to provide an accompaniment to singing and dancing (*see* **FLAMENCO**), it has been increasingly featured as a solo instrument.

In the 20th century many changes were made to the basic design of the classical guitar, mostly for the purpose of producing greater volume and penetration. These changes resulted in several distinct types of guitar, each originally designed to meet the specific musical requirements of guitarists playing in popular music forms, principally folk, jazz, blues, dance music and rock and roll.

Some guitarists, especially American country and western players and crooners, began early in the 20th century to demand more volume from the flat-top acoustic guitar of traditional shape. The company that initially did most to accommodate them was **C.F. MARTIN** of Nazareth, Pennsylvania, which began during the 1920s to produce steel-strung guitars, altered structurally to bear the tension of heavier strings, and in some cases larger than the standard instrument. Other American companies active in popularizing the use of steel strings for guitars included Larson Brothers (from the 1880s) and Gibson (from the 1890s). Martin is probably best known for the invention of the 'Dreadnought' flat-top acoustic guitar, apparently named after the British battleship of the period. It was based on instruments made by Martin for the Ditson company of Boston around 1915, though it was not marketed by Martin itself until 1931, when what would become the D-18 and D-28 models were introduced. The Dreadnought was larger than a normal guitar and had a much broader waist and rather narrower, squarer shoulders. Its resulting 'bassier' tone ideally suited folk, country and western, blues and other popular music forms where the guitar's role was to accompany the voice. The design of the Dreadnought has been widely imitated by many guitar makers since its introduction, most notably by companies such as Gibson (from 1934, beginning with the 'Jumbo' model) and Guild (from the 1950s) in the USA and, later in the century, by Japanese guitar makers.

The large Dreadnought or Jumbo is not, however, the only type of steel-strung flat-top acoustic guitar; steel-strung versions of the classical guitar of traditional size and shape, with some internal strengthening, abound. Martin was, again, an innovator in this area of so-called 'folk' steel-strung acoustics, and many guitar makers in the USA, Europe and East Asia followed them and produced similar instruments.

Flat-top, steel-strung acoustic guitars require a stronger and more complex network of internal bracing than does either the classical or the arched-top guitar. The various styles of bracing that have developed are often referred to by descriptive terms, such as 'X'-bracing and 'fan'-bracing. The woods used to construct flat-top guitars vary depending on the degree of excellence required: the top is usually made of spruce (occasionally of cedar); rosewood, mahogany or maple is used for the back, sides and neck; and rosewood or ebony for the fingerboard. Cheaper flat-tops use laminated rather than solid woods. In 1966 the Ovation company in the USA began to produce guitars with a rounded back made of a synthetic material resembling fibreglass, in combination with a wooden top, neck and fingerboard; the aim, once again, was to improve the projectional qualities of an otherwise standard acoustic instrument.

Most flat-top guitars have a fixed bridge, like the classical guitar, to which the lower ends of the strings are secured by pins. The most popular flat-tops are those with six strings, tuned to the standard *E–A–d–g–b′–e′* guitar pitches. But a variant, the 12-string flat-top, is also made; it was originally used in blues and folk-based music, and has strings tuned in six courses, some in unison and others an octave apart.

Flat-top, steel-strung acoustic guitars have been widely used in all kinds of popular music since the 1920s, most notably country, bluegrass, folk and singer-songwriter styles, and blues, less so in jazz. In rock, such guitars still find a place in the recording studio as a largely percussive element, as a songwriter's tool, and onstage as a visual and musical prop for some vocalists. Playing styles and techniques associated with the instrument vary widely, depending on musical idiom. Most often, particularly in folk music and other styles where a chordal accompaniment is required, a plectrum is used to strike the strings. In ensembles the instrument is occasionally used to play melody lines, melodic support, or jazz-like solos, though in the late 20th-century this role was more usually taken by electric instruments. Sometimes the fingernails, or false nails, are used to play finger-style (or finger-picking) patterns, a style also used on the nylon-strung classical guitar.

Some players adapt the standard six-string tunings to suit their own styles and musical requirements, and a number of patterns have evolved, mainly from blues and folk music. The most common adaptations are 'open' tunings, so named because the open strings are tuned to form a single chord (e.g. *D–G–d–g–b–d′*;*D–A–d–f♯–a–d′*), which can be played at any pitch by stopping all the strings across the relevant fret. These open tunings probably developed in Hawaiian-style ('slack key') playing and country music, in which a slide, a bottleneck worn on one of the fingers of the left hand, or other suitable solid object, is pressed down on the strings, stopping them all at the same point; the strings are not separately fingered, the slide or bottleneck being moved up and down so that parallel chords and single-note runs can be produced. More conventional players

stop the strings in the same way but with the finger, using the ‘barré’ technique. The other common type of adapted tuning is the ‘dropped’, tuning, in which the pitch of one or more strings is lowered to allow non-standard fingerings.

The arched-top (‘carved-top’, or, occasionally, ‘cello-bodied’) guitar was developed in the USA. Experiments by Orville H. Gibson in the 1890s produced a small number of avant-garde carved-top guitars and mandolins, but it was not until the 1920s that the arched-top guitar was commercially developed, as a result of the relatively high volume at which dance bands were playing. Ordinary acoustic guitars could not produce the sound levels needed; the arched-top guitar satisfied this requirement and became increasingly popular in the jazz styles which emerged in the 1930s.

Among the earliest such instruments was the GIBSONL-5 (designed by Lloyd Loar), which was first issued in 1922, and which defined the arched-top guitar. Its construction owed more to violin making than traditional methods of guitar building and was influenced by Orville H. Gibson’s mandolins and guitars of the 1890s. The quest for increased volume was at the root of all the alterations to conventional design introduced in the L-5: it had steel strings instead of gut, the extra tension and weight of which necessitated structural strengthening of the body; the top was strong and thick and carved into a characteristic arched shape; in place of a single soundhole there were two f-holes, for greater projection of the sound and enhancement of the sympathetic vibrations of the top; the bridge was not fixed but ‘floating’ (or adjustable) and the strings passed over it and were secured to a separate metal tailpiece attached to the end of the body.

The first version of the Gibson L-5 had an ebony fingerboard on a maple neck, a birch or maple back, a carved spruce top and spruce sides. It was not only the earliest arched-top to feature f-holes, but it was also one of the first guitars to be fitted with a ‘truss rod’, an adjustable internal metal rod that counteracts warping and minor movements of the neck. The most famous early user of the L-5 was Eddie Lang. From 1939 the L-5 and similar models were often constructed with a body cutaway, designed to give the player easier access to the upper frets.

The L-5 heralded the arrival on the market of many other arched-top acoustic guitars. The makers of these have been principally American, and include the Guild company, which was founded in New York in 1952 by Alfred Dronge and George Mann, moved to New Jersey in 1956 and was later purchased by Avnet Inc.; D’Angelico, set up by John D’Angelico, who had trained as a violin maker, in New York in 1932, and carried on by his protégé Jimmy D’Aquisto after D’Angelico’s death in 1964; Epiphone, established in New York by Anastasios Stathopoulo in the early 1900s, and purchased by Gibson in 1957 after Stathopoulo’s death; and Stromberg, set up in Boston by Charles A. Stromberg in the 1880s and carried on by his son Elmer from the 1930s.

The arched-top acoustic guitar fulfilled a specific role in the heyday of the American jazz and dance band; although it was designed for plectrum playing and produced the greatest possible volume when a plectrum was used, some guitarists played it with the right-hand fingers. The popularity of the arched-top acoustic waned with the widespread use of theELECTRIC GUITAR, which easily outclassed it in terms of response and increased volume. Those arched-top guitars that survive, do so primarily as collectors’ items, although specialist makers such as Bob Benedetto and John Monteleone emerged in the USA at the end of the 20th century.

Other attempts were made in the 1930s to increase the volume projected by the acoustic guitar. Early in the decade Mario Maccaferri (1900–1993) designed for the French company Selmer a series of guitars that had distinctive D-shaped soundholes (later oval) and a unique extra sound chamber inside the body (later removed); the resulting clear, piercing tone quality became the hallmark of Django Reinhardt’s playing at that period. A similar idea was exploited from 1927 in the ‘ampliphonic’ or ‘resophonic’ guitar (commonly known by one of its trade names, Dobro), which had one or more metal resonator discs mounted inside the body under the bridge. The Dobro was often played across the lap and with a slide, like the HAWAIIAN GUITAR, and both types were used at an early stage in experiments with amplification, which led to the development of the electric guitar (*see also*RESONATOR GUITAR).

Tony Bacon

8. Regional variations.

(i) Russia: the seven-string guitar.

In the late 18th century, schools associated with the seven-string guitar tuned *D–G–B–d–g–b–d′* developed in Russia. Early tutors for the instrument were published there by Ignatz von Held (*Methode facil pour apprendre à pincer la guitare à sept cordes sans maître*, 1798) and Dmitry Kushenov-Dmitriyevsky (*Novaya i polnaya gitarnaya shkola*, 1808). Music for the seven-

string guitar was developed to a high degree of technical complexity by Andrey Sychra (1773–1850), who taught in St Petersburg from 1813; of his students, Semyon Aksyonov (1784–1853), Vladimir Morkov (1801–64), Nikolaj Aleksandrov (1818–84) and Vasily Sarenko (1814–81) wrote first-rate guitar music. In Moscow, guitar playing activity was centred on the player-improviser Mikhail Vïsotsky (1793–1837), who emphasized left-hand effects (legato up to seven notes, *portamento*, vibrato). The virtuoso Fyodor Zimmermann (1813–82) was also a composer and improviser. Despite their popularity in Russia, none of these guitarists gained international acclaim. Two guitarists, Nikolay Makarov (1810–90) and the Polish-born M.K. Sokolowski (1818–83) did become known; both, however, played two-necked 'Spanish' guitars with extra bass strings.

In the early 19th century, music for the seven-string guitar consisted mostly of variation sets on Russian folksongs and operatic arias, original dance pieces, transcriptions and potpourris; by mid-century 'cosmopolitan' forms such as preludes, études, nocturnes and ballades were favoured. A few large-scale independent works also survive, for example Sychra's *Divertissement sur des aires russes* (1813) and *Practical Rules in Four Exercises*(1817), and the Sonata by Vïsotsky's pupil Aleksandr Vetrov. Although the guitar declined in popularity in Russia in the second half of the century, it experienced a revival around 1900 in association with the writings of Valerian Rusanov (1866–1918) and the magazines *Gitarist*, *Akkord* and*Muzïka Gitarista*. Throughout the 20th century six- and seven-string guitars co-existed in conservatories and music schools.

Oleg V. Timofeyev

(ii) Iberia, Latin America and the Pacific.

Portuguese rajão, 19th century (Horniman Museum, London)

The small guitars of Renaissance Europe were the prototypes of instruments that have persisted in Spain and Portugal, and which were carried through trade contacts to Central and South America and East Asia. The growth in size of the classical instrument also finds its counterpart in the range in size of folk instruments. Spain has the *bajo de uña*, a very large, short-necked guitar with eight strings, but the *guitarra* tuned *E–A–d–g–b–e′* is the standard instrument. The *guitarra tenor* has the tuning *G–c–f–b♭–d′–g′*; the *guitarra requinto* is tuned *B–e–a–d′–f♯–b′*; and the smallest is the *guitarillo* with five strings tuned *a′–d″–g′–c″–e″* (the term *guitarro* also refers to a small instrument, with four or 12 strings, played by strumming). Portugal has the normal guitar, which is called*violão*; the Portuguese *guitarra* is similar to the Spanish**BANDURRIA**, and, in spite of its name, it does not have the waisted outline of the guitar; the Portuguese *machete* (*cavaco*, diminutive *cavaquinho*), has either six or, more commonly, four strings; and the *rajão*, which sometimes has the body in the form of a fish, has five strings (**fig.8**).

The *guitarillo* is also known as the *tiple* (treble), and in the Canary Islands, where the name has been transformed to *timple*, it has a vaulted back and either four or five strings; these may be tuned to the upper intervals of the standard guitar tuning, but more traditional tunings are*c″–f′–a′–d″* and *f′–c″–e′–a′–d″*, which can be raised a tone for an E tuning. The name *tiple* is also applied to a small *bandurria* in Cuba, which has five pairs of strings. Cuba also has the small guitar *tres*, with three pairs of metal strings. The term *guitarrilla* is found in Bolivia, Guatemala and Peru. In the two last it denotes a small four-string instrument, used to accompany song and dance. In Bolivia, where it is the only known string instrument of the Chipaya people of the Department of Oruro, it has five double courses (tuned *d′–a′–f′–c′–g′*) and six frets; it has a guitar-like body with ribs, a flat front and a slightly curved back. *Guitarrillas* are played in pairs for textless *wayñus de cordero* (songs in praise of sheep) or *tornadas del ganado* (songs for cattle) at the *k'illpa* (animal branding) festival. The Chipaya of the village of Ayparavi have three different sizes of *guitarrilla*:*paj*, *taipi* and *qolta*, all with gut strings. The two largest are tuned as above, the smallest a 4th higher (see Baumann B1981 and B1982).

The *jarana* (diminutive *jaranita*) is a small Mexican guitar used in instrumental ensembles and to accompany dances; it is the equivalent of the *charango*, which is widely distributed in South America (north-west Argentina, Bolivia, Peru and Chile). The *charango* has five single or five paired strings, tuned *g′*(*g′*)–*c″*(*c″*)–*e″*(*e′*)–*a′*(*a′*)–*e″*(*e″*); the body consists of an armadillo shell that has been dried in a mould to produce the waisted guitar shape. The name *violão* has been retained in Brazil for the classical guitar. The Brazilian folk guitar, by contrast, is called*viola* and has a variety of tunings according to place and function; most examples have five double courses (occasionally four or six). In Mexico the term*guitarra de golpe* is used as an alternative to *vihuela* for a small five-course guitar used in folk ensembles. The modern Mexican *guitarrón*is a large six-string bass guitar, tuned*A′–D–G–c–e–a*(19th-century versions usually had four or five strings), while the Chilean type has up to 25 strings arranged in courses. Puerto Rico also has a five-course instrument, with four double courses and the fifth either single or double. It is played with a plectrum. The Puerto Rican instrument is known as a *cuatro*, a name more logically identified with the small Venezuelan guitar with four strings; the five-string guitar is called *quinto* in Venezuela. In the hands of a virtuoso performer, the Venezuelan *cuatro*, in spite of its seeming limitations, is capable of more complex textures than those it is obliged to provide in its folk setting, and two *cuatros* can accommodate transcriptions of art music. The *machete* was introduced by Portuguese sailors to the Hawaiian islands, where it was developed into the ukulele with its re-entrant tuning *g′–c′–e′–a′* (for illustrations *see* **UKULELE**). Also of Portuguese origin is the small, narrow *kroncong* of West Java, which has five

strings. The Montese of Mindanao in the Philippine Islands have a three-string guitar called *tiape*. (For discussion of the use of the guitar in Indonesia, *see* INDONESIA, §I, 3(IV).)

In the last few decades of the 20th century the tremendous increase in global travel blurred the traditional regional distinctions among the many hundreds of different guitar-like instruments. Once-obscure South American variants were encountered on street corners in European cities, while Japanese-made classical guitars could be found taking part in music-making in remote Andean villages.

Harvey Turnbull/Paul Sparks

(iii) Africa.

In the 20th century the factory-made Western guitar, first acoustic, then electric, rose to prominence throughout sub-Saharan Africa. It assumed a central position not only in urban cultures but also in some rural areas, where several home-made models were locally developed. It replaced many long-established instruments previously used for personal music, such as lamellophones and a variety of string instruments, absorbing some of their playing techniques, melodic and harmonic patterns and musical concepts. Several distinctive styles and innovative musical forms were developed by now legendary composer-performers such as 'Sam' Kwame Asare (Ghana), Ebenezer Calender (Sierra Leone), Antoine Kolosoy Wendo, Mwenda Jean Bosco, Losta Abelo, Edouard Masengo (Democratic Republic of the Congo), Liceu Vieira Dias (Angola), Faustino Okello (Uganda) and Daniel Kachamba (Malawi).

From the early 19th century onwards, sailors from Portugal and other nations are likely to have played guitars or guitar-like instruments on ships that called at African ports. Not surprisingly, therefore, the first Africans to adopt this instrument were crew men – Kru sailors from Liberia. During the second half of the 19th century they seem to have introduced the guitar to ports along the Guinea coast, and at the beginning of the 1920s also to the port of Matadi, in the Democratic Republic of the Congo (according to oral testimony by Wendo). But only with the rise of a gramophone industry in the late 1920s and of radio broadcasting from African capitals during the 1930s and 40s did guitar music gain popularity. At first, local guitar music was impregnated with European, Caribbean and North and Latin American styles. In the 1930s and 40s major sources of inspiration were calypso (along the west coast), country music by Jimmie Rodgers and others (for example in some parts of Kenya), and Hawaiian-style guitar music (in Zimbabwe and neighbouring areas); these were soon followed by Cuban orchestral forms and Latin American dance music (Central Africa). Each period of imitation soon gave way to creative reinterpretation, leading to the rise of characteristic African guitar styles based on local musical concepts.

Beginning in the late 1920s record companies realized the potential market for this new music: the legendary Ghanaian guitarist 'Sam' Kwame Asare recorded with his Kumasi Trio in London in June 1928. After World War II record companies devoted primarily to the new guitar-based dance music were formed in Kinshasa, Brazzaville and West African cities, and the newly established radio stations spread guitar music to remote villages. One of the first musicologists to record the new traditions was Hugh Tracey, who documented many examples of the KATANGA GUITAR STYLEof the 1950s. In February 1952 he discovered Mwenda Jean Bosco (1930–97) in the streets of Jadotville (Likasi) in what was then the Belgian Congo, and launched him on a full-time career. Bosco's timeless compositions, *Masanga*,*Bombalaka* etc., stimulated David Rycroft (1958–61, 1962–5) to carry out the first scholarly study of an African guitar style.

Most guitars used in Africa during the first half of the 20th century came from Europe or South Africa. The most popular instruments, such as those produced by Gallotone of Johannesburg, had a narrow fingerboard, since African guitarists used the thumb to stop the lowest string. Finger-style guitarists of the period used a pencil, a piece of wood, or a nail, etc. as a *capo tasto*to raise the overall pitch level to match the singer's (*African Guitar*, B1995). Many different tunings were used; often the top five strings were given a standard tuning while the sixth was raised by a semitone to *F*. The strings were sounded almost exclusively by the thumb and index finger of the right hand. Special techniques such as the 'pull-off' and the 'hammer-on' were used in the left hand (Low, B1982, pp.23, 58, 115 and *African Guitar*, B1995). In slide guitar playing, called *hauyani*('Hawaiian') in Zimbabwe, Zambia and Malawi, the strings were tuned to a triad; Moya Aliya Malamusi plays in this style in *African Guitar*, B1995. Normally a small bottle serves as a slider. In both finger-style and plectrum playing the melodic patterns heard by the listeners are 'inherent patterns', only indirectly related to those of the fingers; in the 'I.P. [inherent pattern] effect' a complex succession of notes is split by the ear into several distinct layers (*see* AFRICA, §3(V)).

The introduction of the electric guitar at the beginning of the 1960s generated a restructuring of guitar music in Africa. A grouping of lead, rhythm and bass guitar replaced the solo guitarist, dividing the material among them. Congolese groups, such as Franco Luambo Makiadi and his OK Jazz, Tabu Ley Rochereau and his Orchestre African Fiesta, Kiamanguana Verckys and the Orchestre Vèvè, and Jean Bokelo and his Orchestre Conga Succès, took the lead in African electric-guitar based music in the 1960s and 70s. In Nigeria, following the popularity of Ghanaian HIGHLIFEmusic during the 1950s, which led

to Yoruba and Igbo versions, JÙJÚ came to dominate southern urban music. In Zimbabwe, guitar-based *chimurenga* music by Thomas Mapfumo and others began to dominate the scene in the early 1980s. The music incorporates traits from the *mbira dza vadzimu* lamellophone, with its harmonic patterns of 4th and 5ths. In South Africa, Isizulu solo guitar styles were transferred to the electric guitar. In 1995 electric guitars were being used in *mbaqanga*, and Zulu *maskandi* solo music was experiencing a revival on both acoustic and electric guitars (N. Davies, in Schmidt, B1994; *see also* SOUTH AFRICA, §III).

At the end of the 20th century, in the era of digitally-created sound, the gap had widened between those few African musicians with access to expensive equipment and those without. By the 1990s acoustic guitar music, with the exception of the Zulu *maskandi* and some forms played on home-made instruments, had almost completely disappeared in Africa. However, electric guitars were often too expensive for musicians in economically deprived areas. In West Africa, 'drum-matching' and other sounds created by a synthesizer had replaced almost all instruments except the guitar in recording studios. All across Africa, live music was being replaced in places of entertainment by often pirated cassette recordings transmitted through powerful loudspeakers (Schmidt, B1994).

Gerhard Kubik

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AND OTHER RESOURCES

A Bibliographies. B General. C The instrument. D Guitar technique. E Guitarists.

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