

Tablature (Fr. *tablature*; Ger. *Tabulatur*; It. *intavolatura*)

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A score in which the voice-parts are ‘tabulated’ or written so that the eye can encompass them. In practice, scores in staff notation with one voice-part per staff are not usually called tablatures unless they are for a solo keyboard instrument (see §2(v) below). The term is more often used for a condensed score in which two or more voice-parts are written or printed on a single staff or comparable area of the page, although when this consists entirely of staff notation it is more often called ‘keyboard score’ or (for concerted music) ‘short score’. The common use of the term ‘tablature’ therefore excludes these; the following article thus discusses any notational system of the last 700 years that uses letters, numbers or other signs as an alternative to conventional staff notation. Such systems were chiefly used for instrumental music; dance tablatures are beyond the scope of this article. For a discussion of tablature in its historical context, see Notation, §III, 5, (i).

1. General.

Systems of tablature have been in use in western European music since at least the early 14th century, most of them deriving from the playing technique of a particular instrument. Whereas staff notation shows in one symbol both the pitch and duration of a note, tablature systems in general use one symbol to show how to produce a sound of the required pitch from the instrument in question (which string to pluck, which fret to stop, which key to press, which holes to cover and so on) and another to show its duration. Staff notation was developed for, and is primarily associated with, single-line music, whereas tablature’s speciality is part-music. Each was originally at its maximum effectiveness in its own field. Although staff notation has now superseded most tablatures, it gained much from its long contact with its rivals, and many of its most valuable features derive ultimately from one or other of them. In tablature systems, for instance, each note or rest was worth two of the next smaller value, and a dot after a note had only one meaning: that it increased the note’s duration by half its original value. Regular barring, too, was frequently adopted, especially in lute tablatures. The simplicity, clarity and logic of such common features of tablatures were considerably in advance of staff notation. The most important categories of tablature are those for keyboard (usually organ) and lute. A large proportion of the keyboard pieces copied between 1320 and 1520, many of which are of German origin, survive in tablature form. The various types of lute tablature, on the other hand, represent a more direct form of instruction to the player, and these have been used for virtually all lute music from the early 16th century to the present day.

2. Keyboard.

(i) Germany, 14th century.

The earliest known example, the Robertsbridge Codex (**GB-Lbl** Add.28550), dates from about 1360 and was almost certainly intended for the organ, but some scholars consider that it may have been for clavichord. Although some of its contents are French, and the manuscript itself comes from an English abbey, its rightful place in a discussion of tablatures is under German keyboard tablature since many of its characteristics are, in embryo, those of later German ones. It is a part-tablature only, however, since the top voice of the music is notated on a five-line staff (no explanation has been suggested for this illogical feature of early German tablature). The notes of the lower voices are written in letter notation beneath the notes on the staff; their length and the beat on which they are to be played is determined by their position with respect to the staff-notes and their octave by considerations of part-writing. The word 'sine' (or simply the letter 's') denotes a rest. The black notes of the keyboard are regarded as belonging to the white note on their left ($B\flat$ and $B\sharp$ taking the normal forms of \flat and \sharp however): thus the black note between C and D is regarded as 'the black note of C' or, for short, 'of-C' and, in vulgar Latin, 'Cis'. In the Robertsbridge Codex this is shown by a wavy line following the letter, and the chromatic scale thus appears as in ex.1; later scribes used the normal abbreviation for terminal '-is', is . Although the compass of these pieces does not exceed $c-e''$, it is interesting that, in the middle octave at least, all 12 notes of the octave are in use, even at this early date. Organ pedals were in existence in Germany by the time the manuscript was written, yet these six pieces do not appear to require their use.

Ex.1

\flat c^w d^w f^w g^w
a \sharp c d e f g a, etc.

Ex.1

(ii) Germany, 1432–1570.

The above system of tablature had been considerably improved in many respects by the time it is next encountered, a century later. The top part was written on a six-, seven- or eight-line staff (a retrograde step, perhaps: five-line staves were not in general use again for keyboard music until the 17th century); a downward stem, with or without a dash through it, indicated chromatic alteration (\flat or \sharp as appropriate), and a loop to such a stem denoted an ornament, perhaps a shake or a mordent (Arnolt Schlick's *Tabulaturen etlicher Lobgesang und Lidlein* of 1512, however, used the loop for chromatic alteration). Each lower voice was shown as a row of letters, the sharp affix now taking the form of a loop; the letters b and h signified $B\flat$ and $B\sharp$ respectively. The middle octave consisted of plain letters, the ones above it of doubled letters or letters with a dash or dashes above them (cc, c, c^{e}) and the one below it of capital letters or letters with a dash beneath them (C, c). Each letter had a rhythm sign above it to show its duration; these signs were derived from their staff notation equivalents as in ex.2. For rests, staff notation signs or slight variants of them were used. Many of the tablatures dating from this period were barred regularly. Some, such as the 'Ileborgh' tablature (formerly **US-PHci**, but now in a private collection), contain what appear to be indications for two-note chords in the pedals,

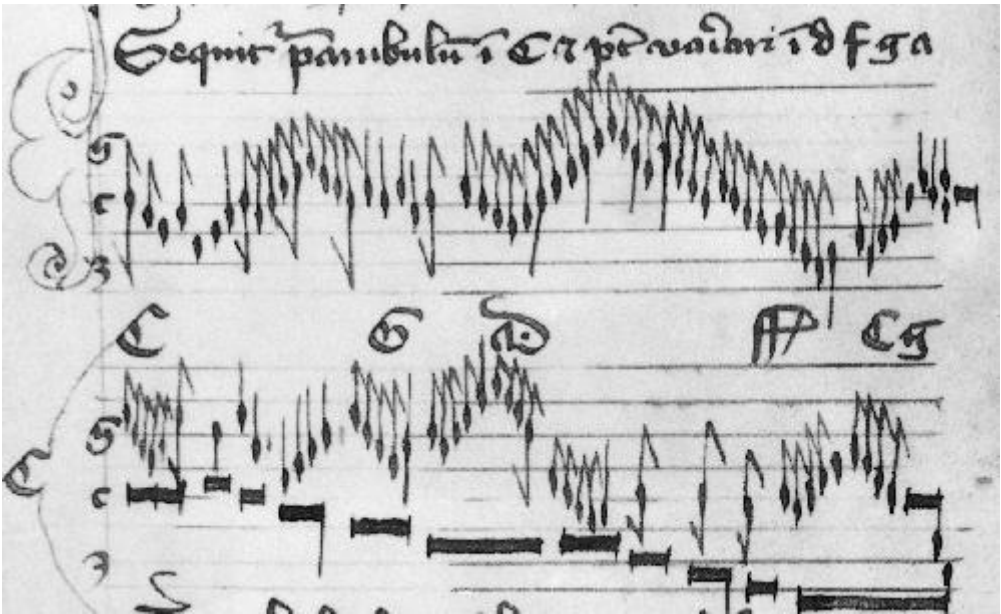
although not all scholars agree with this interpretation (fig.1). When possible, notes and rhythm signs of like value were grouped together, as in ex.3. The extract of music which in staff notation would appear as in ex.4a would have been shown in this tablature as in ex.4b (all the music examples in this article show the first two bars of Dowland's ayre *Flow my tears*).

Ex.2

f loop denotes mordent
g loop denotes sharp

•	=	•	or	•
♪	=	♪	or	♪
♯	=	♪	or	♪ etc.

Ex.2



Old German keyboard tablature: Preambulum in C from the Illeborgh tablature, 1448, p.2; the letters below the first system (C, G, D, F#, etc) may indicate two-note chords in the pedal

Private Collection

Private Collection

Ex.3

for ♯ ♯ ♯ ♯ ♯ for ♯ ♯ ♯ ♯

Ex.3

Ex.4

(a)

Flow my tears fall from your springs

(b)

c h c d e d c d e e

Ex.4

(iii) Germany, 1570–1750.

From about 1570 the above system continued in use, but with two substantial changes: the top part no longer used staff notation but was written in letter notation like the other parts; and the value of the rhythm signs was doubled in conformity with contemporary lute tablature. The modern tie sign appeared for the first time, although its use in staff-notation keyboard scores was already well established. This modified form of the earlier German keyboard tablature remained in widespread use, especially in northern Germany, until the mid-18th century, and it is last mentioned in Johann Samuel Petri's *Anleitung zur praktischen Musik* (Leipzig, 2/1782). J.S. Bach used it occasionally in the *Orgel-Büchlein* as a space-saving device when insufficient allowance had been made for the length of a chorale prelude. An example of this later German keyboard tablature is shown in ex.5.

Ex.5

a g f e c c h a g

c h c d e e d c d e e

a a g a h

A A f e

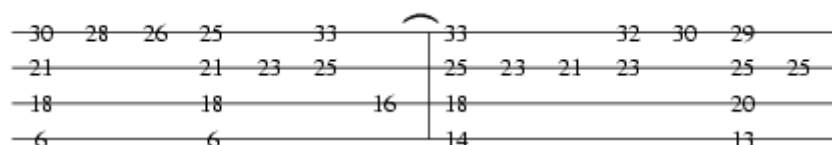
(| = o , | = d , | = e , etc)

Ex.5

(iv) Spain, 1550–1700.

Nothing is known of Spanish keyboard music before 1555, when Juan Bermudo explained two new systems of notation in his *Declaración de instrumentos musicales*; the systems he proposed may well have been his own inventions. The first assigned a number, from 1 to 42, to each key of the organ, the numbers proceeding in unbroken sequence from left to right of the keyboard (*C–a*′, but fully chromatic *A–a*′ only). The number of lines to a ‘staff’ in the resulting tablature corresponded to the number of voices in the composition, and the music was barred regularly. The apparent suitability of this system for contrapuntal music was more than outweighed by the ambiguities that inevitably resulted from the absence of rhythm signs and from the inability to indicate ties in the inner parts (ex.6). This system was quite unsuited to music that included cross-rhythms, considerable independence of parts, or a free-voiced texture. Its use was apparently confined to Bermudo’s book.

Ex.6



Ex.6

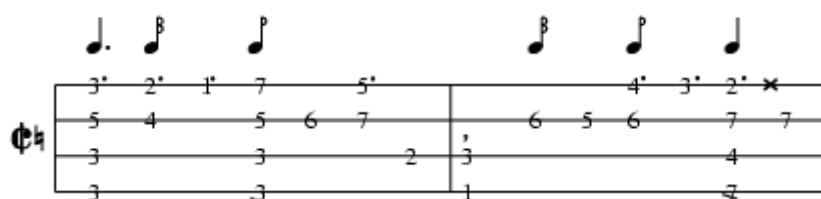
Bermudo’s second system, also used for certain Italian publications, assigned a number, from 1 to 23, to each white note of the keyboard (because of the ‘short octave’ the *E* key, assigned the number 1, was tuned to *C*, numbers 2 to 23 representing *F* to *f*′). The black notes were all considered as sharps, and were shown by a sharp sign above the appropriate number. Thus a sharp over a 6 was *c*♯, a sharp above a 10 was *a*♭ or *g*♯, according to context, and so on; the letter ‘t’ above a figure denoted an ornament. The right-hand and left-hand parts were shown above and below a horizontal line. The durations of individual musical events were indicated as in lute tablature by signs above the right-hand part; each rhythm sign above the staff applied to all the figures in the column immediately below it and remained valid until contradicted by another sign. These were supplemented by original signs (; :: and ? for 1½, 2, 3 and 4 minims), placed after the figures to which they refer, which modified the durations of the individual notes, thus clarifying the part-writing (ex.7).

A third numerical system of Spanish keyboard tablature was used also for the harp or the vihuela. It was first used by Venegas de Henestrosa in his *Libro de cifra nueva* (Alcalá, 1557), and later in Cabezón’s *Obras de música* (Madrid, 1578) among others. It emphasized the division of the scale into a repeating octave pattern of seven white notes: the middle octave from *f* to *e*′ was assigned the numbers 1 to 7; pitches one or two octaves lower were shown by one or two dashes through the number, pitches one or two octaves higher by a superscript dot or comma (fig.2). Each voice (from two to six) had a line of its own, chromatic alteration was indicated by sharps or flats placed after the note they affected, and rhythm signs of staff notation were added where required. Since these rhythm signs were valid for all the figures in the column below, the value of only the shortest of the notes to be played simultaneously could be precisely notated. A comma by itself indicated a tie from the preceding note, an oblique stroke or the letter ‘p’ a rest, and the letter ‘R’ an embellishment. Time and key signatures were given before the beginning of the piece, with B and ♯ standing for B♭ and B♯ respectively (see ex. 8). An early 17th-century extension of this tablature for vocal music is discussed in §8 below.



Spanish keyboard tablature with numerals for diatonic notes in each octave: 'Susana un jur' from Antonio de Cabezón, 'Obras de música' (1578)

Ex.8



Ex.8

All these numerical systems, *cifras* ('ciphers') as they were called in Spanish, had the great advantage that they could be set up in any printer's shop from standard or near-standard founts of type by unskilled compositors. Founts of music type were expensive; they could be adapted to keyboard music only with great difficulty and labour and they needed experienced and skilled typesetters. The engraving and punching of plates was ultimately to prove the best method of printing music, but it was still in its infancy when these numerical systems were developed. Derivations of them were in use for psalter and dulcimer music as late as 1752 (in Pablo Minguet's *Academia musical*). Many variants have been put forward by a legion of theorists from the 13th century (**GB-Ob** Marsh 161) to the present day (see Wolf).

(v) Other forms of keyboard notation from 1500.

Words like 'intavolatura' and 'tabulatura' were loosely used in many 16th- and 17th-century sources to describe music in staff notation or (at a slightly later date) in keyboard partitura. In Italy this can be seen in two of the earliest surviving printed sources of keyboard music, Andrea Antico's *Frottole intabulate da sonare organi, libro primo* (Rome, 1517) and Girolamo Cavazzoni's *Intavolatura cioè recercari, canzoni, himni, Magnificati* (Venice, 1543). In France a parallel can be seen in the *Dixneuf chansons musicales reduictes en la tablature des orgues espinettes manicordions* (Paris, 1530), the

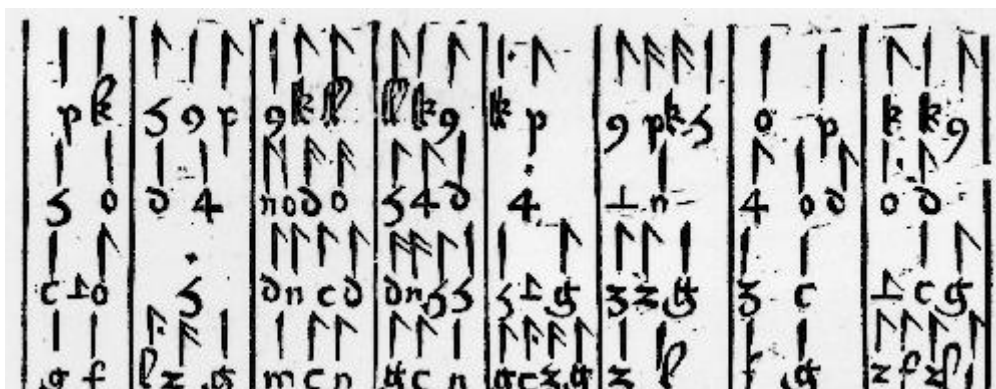
first of several such collections of keyboard music published by Pierre Attaingnant in the 1530s. In the early 17th century the use of the term 'tabulatura' to describe staff notation spread to Germany, an early example being Johann Ulrich Steigleder's *Ricercar tabulatura* (Stuttgart, 1624). Some early 17th-century German sources of keyboard music use words such as 'Tabulatur' or 'Tabulaturbuch' to describe the form of notation more properly known as keyboard partitura. These include Samuel Scheidt's *Tabulatura nova* (Hamburg, 1624) and Johann Ulrich Steigleder's *Tabulatur Buch darinnen dass Vater Unser* (Strasbourg, 1627). (See Intavolatura and Partitura.)

3. Lute.

Although the German system of notating lute music is possibly the oldest, it appears that the three principal systems of lute tablature were developed almost simultaneously in the second half of the 15th century. Their basic principle was to guide the fingers of the player's left hand over the lattice, formed by courses and frets crossing at right angles, on the fingerboard. (In the following explanations 'course' will have its standard meaning. The usual 16th-century lute had seven frets and six courses of strings, usually tuned *G-c-f-a-d'-g'* or *A-d-g-b-e'-a'*; in general, France and England used the G tuning, Italy, Spain and Germany the A tuning. Each course consisted of either a single string or a pair of strings, the strings of a pair being tuned either in unison or at the octave; later instruments acquired extra frets and more strings: see Lute). Each intersection of fret and course corresponded to a specific note, and an efficient system of notation therefore needed to identify each such intersection clearly and unmistakably. Even on a 15th-century lute with only five courses and five frets there were 30 such intersections (including the open strings) and on an early 17th-century theorbo-lute there might have been seven courses, up to 12 frets, and also six or seven 'diapasons' (open strings running clear of the fingerboard). The tablature for such an instrument needed to be capable of directing the player to form almost 100 notes. Moreover, the lute was required to give the impression of polyphonic part movement, so the tablature symbols needed to be capable of being grouped together two, three or four at a time. One area of inadequacy that lute tablatures share with Spanish keyboard tablatures is that the value of only the shortest of the notes to be played simultaneously could be notated precisely.

(i) Germany, 1511–1620.

Although the earliest known printed example of the cumbersome German tablature, in Sebastian Virdung's *Musica getutscht* (fig.3), dates from 1511, the fact that the system was clearly designed for a five-course lute with five frets shows that it must have been invented considerably earlier. According to Virdung the system was attributed to the blind organist Conrad Paumann (1410–73). The open courses are numbered 1 to 5, with 1 corresponding to the bottom course, and each intersection of fret and course is denoted by a letter of the alphabet running across the fingerboard from bottom course to top. In order to provide the 25 symbols required, the common abbreviations for 'et' and 'con' were added to the 23 letters of the German alphabet; for higher frets the alphabet was repeated either in doubled letters or in letters with a dash above them (aa or ā, bb or b̄ etc.). When a sixth course was added below the original five it was not possible to extend this closed system in any logical way, and several compromise solutions were used. The German tablature, with the most important of its alternative forms, is given in the diagram shown as ex.9. In practice, symbols intended to be played simultaneously were grouped in vertical columns; rhythm signs were placed above each note or group of notes, often grouped in twos or fours. The music was usually barred regularly (ex.10).



The earliest known printed example of German lute tablature: Sebastian Virdung, 'Musica getutscht' (1511); each numeral refers to an open string and each letter or other symbol refers to one position on the fingerboard (each is given a rhythm sign)

Ex.9

alternatives				1	2	3	4	5		
†	†	A	1	†	1	2	3	4	5	nut
ā	A	B	2	A	a	b	c	d	e	
f	B	C	3	F	f	g	h	i	k	fiets
l	C	D	4	L	l	m	n	o	p	
q	D	E	5	Q	q	r	s	t	v	
x	E	F	6	X	x	y	z	ē	9	
āā	F	G	7	Ā	ā	b	c	d	ē	
ff	G	H	8	F	f	g	h	i	k	courses
ll	H	I	9	L	l	m	n	o	p	
tunings				G c f a d' g'						
				A d g or b e' a'						

Ex.9

Ex.10

h	n	z	i	g	3	4	n	4	i	i
r	r				2				h	
q	B								q	
B										

(accompaniment only)

(♯ = ♯, ♯ = ♯, ♯ = ♯, ♯ = ♯, etc
 ##### = #####, ##### = #####, etc)

Ex.10

The German tablature was strongly criticized as early as 1528 by Martin Agricola, although the alternative system he proposed was not adopted anywhere. Melchior Neusidler tried to introduce Italian lute tablature into Germany in the mid-16th century, but he met with much opposition.

(ii) Italy, 1500–1650.

The Italian system was more logical than German lute tablature since it was a visual representation of the fingerboard. Its clarity and ease of application remained, however many courses or frets the instrument possessed. Each course was represented by a horizontal line, the bottom course corresponding to the top line. The ‘staff’ formed in this way normally had six lines (i.e. as many as there were courses). The open course was represented by a figure 0 on the appropriate line, the first fret by 1, the second by 2 and so on, the 10th, 11th and 12th frets being represented by the special single symbols x, ẋ and ẍ, since a double symbol like 10 might be confused with the two separate symbols 1 and 0. Rhythm signs were shown above the notes; at first they were repeated for each note or chord (see ex.11), but from about 1530 onwards a more economical system prevailed whereby each rhythm sign remained valid until it was replaced by another. In later sources, both printed and manuscript, the normal staff notation rhythm signs tended to replace the traditional lute ones. Diapasons were shown as numbers (from 7 to 14) set between the ‘staff’ and the rhythm signs. Italian tablature was used for some books printed in Kraków, Lyons and Strasbourg in the second half of the 16th century, and a few English and Austrian manuscripts are known (e.g. **GB-Lbl** Add.29246-7 and 31992); but it was mainly confined to Italy.

Ex.11



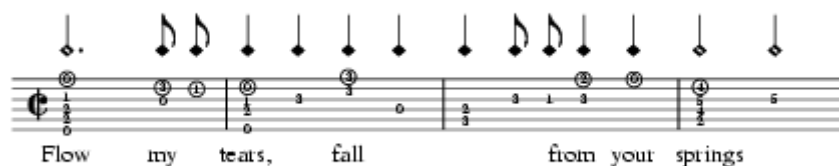
(accompaniment only: in A tuning)

(| = 0, | = 1, etc.; in the earliest sources the following also occur:
 | = 1/3 0; | = 2/3 0)

Ex.11

(iii) Spain, 1530–80.

The indigenous Spanish instrument of the lute family was the vihuela, tuned and played like a lute, but shaped and strung slightly differently. Spanish tablature closely resembled Italian, although exceptionally, as in Milán's *El maestro* (1536), the six-line ‘staff’ was inverted so that the top line represented the highest course of the vihuela. Occasionally a vocal line was included in staff notation above the tablature, as in Germany and Italy; or it might be incorporated in the tablature itself in red numerals. In some collections of Spanish lute music the compositions are barred in units of one semibreve, a system of barring that differs from that of most barred lute sources. Ordinary staff notation rhythm signs were used (see ex.12).

Ex.12

(in A tuning: figures in circles would have been printed in red)

Ex.12

(iv) France, 1500–1815.

The French form of lute notation, adopted by English composers, was the most successful of all lute tablatures, and it eventually superseded the others (although not for guitar music). It used a five- or six-line 'staff' in which, as in Milán's book, the top line represented the highest course. The frets, however, were lettered and not numbered, the open string being 'a' or 'A', the first fret 'b' or 'B', and so on. To assist the eye in distinguishing between similar letters these were soon given special forms; the commonest lute alphabet is shown in ex.13. The letters were placed either on or above the line to which they referred. Lute and, later, staff notation rhythm signs were used, placed as usual above the 'staff'. Letters or figures beneath it denoted diapasons (fig.4); their tuning sometimes varied according to the key of the piece, but they usually descended diatonically (a, /a, //a, ///a, ////a ...; 7, 8, 9, 10 or X, 11 ...). In English lute music plain letters below the 'staff' often denoted a seventh course running over the fingerboard and tuned a 4th below the sixth course.

Ex.13

Ex.13



French lute tablature: a presto by Silvius Leopold Weiss in Telemann, 'Der getreue Music-Meister' (1728-9); the lowest line of the 'staff' corresponds to the course lowest in pitch, and extra diapasons are indicated by //a, ///a etc.

Deutsche Staatsbibliothek, Berlin

Deutsche Staatsbibliothek, Berlin

(v) Supplementary signs.

Many of the niceties of lute playing were indicated by special signs, the most important of which are listed here. A dot beneath a symbol sometimes meant that the chord was to be struck from above instead of, as normally, from below; it was more likely, however, to have been a fingering indication for the right hand (· = 1st, .. = 2nd, ∴ or ∷ = 3rd, = little finger). A vertical line facilitated orientation when the components of a chord were widely spaced. An asterisk, cross or oblique stroke by the side of a symbol showed that the stopping finger must be held down on its fret for as long as possible, thus sustaining the note or notes in question. A numeral by a symbol showed left-hand fingering. Slurs joining two symbols indicated a special kind of legato playing, only the first of the two notes being plucked. A wide variety of special signs was used to indicate trills and ornaments (see Dodge and Spencer).

4. Guitar.

(i) Tablature proper, 1549-1741.

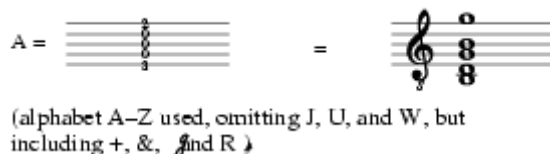
Throughout this period a certain amount of contrapuntal guitar music was written and published using French, Italian or Spanish lute tablature, and it needs no special discussion. Music for four-string or for five-string guitar can be identified by its tunings and the number of 'staff' lines, corresponding to the number of strings. The first steps towards a new type of notation were made by Joan Carlos Amat

in his *Guitarra española* (Barcelona, 1596, and later edns); he assigned a single arabic numeral to each of the most frequently used chords (i.e. positions of the left hand), arranging them in a systematic order.

(ii) ‘Alphabets’ (alfabeto), 1606–1752.

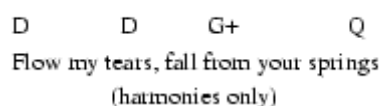
An important innovation was introduced by Girolamo Montesardo in his *Nuova inventione d'intavolatura* (Florence, 1606) – although the system is used in at least one earlier source (**I-Rvat** Chigi L.VI.200, from 1599). It was a new shorthand notation for *rasgueado* playing, sweeping the hand back and forth over all the strings at once, as distinct from *punteado* playing, in which the strings were plucked individually according to the lute technique. In Montesardo’s system each left-hand finger position for the 27 most usual chords was denoted by a single letter. Thus ‘A’ stood for the finger position which in five-line Italian tablature would have been shown as in ex.14 according to the tuning *A-d-g-b-e’*. These symbols were arranged above or below a horizontal line according to one of the following plans: a symbol above a line meant a chord struck upwards, below the line a chord struck downwards, and note values were shown by capital or small letters; or upward and downward dashes above or below the line showed the direction in which a chord was to be struck, and note values were shown by rests and staff notation notes or by the spacings between the dashes. Sometimes bar-lines were used, sometimes the horizontal line was broken up into a number of short equal segments, each representing a bar of music. Numerous modifications, additions and improvements were made to this simple but adequate shorthand by the leading 17th-century guitar players such as Foscari and Millioni (most are given in Wolf). Their most important single feature was the introduction of symbols for discords. The system was obviously easy to learn and extremely cheap to print, and a considerable amount of music in these ‘alphabets’ is still extant, most of it dating from the 17th century. Many manuscript collections of popular Italian poems of this period have ‘alphabets’ above the words as in ex.15, so that they may be sung to a strummed guitar.

Ex.14



Ex.14

Ex.15



Ex.15

Combinations of *alfabeto* and staff notation are found in some sources of the period. However, the most worthwhile guitar music of the period, for example Foscari’s and Corbetta’s, is written in an unusual combination of conventional tablature and *alfabeto*; once the principles of each have been grasped it is

not difficult to transcribe (ex.16) After about 1750 guitar music was written in conventional staff notation an octave above the sounding pitch, the guitar like the double bass being regarded as a transposing instrument..



Ex.16

5. Other string instruments.

(i) Plucked instruments.

Most plucked instruments (angelica, chitarrone, cittern, colascione, gittern, mandolin, orpharion, pandora, theorbo) used either French or Italian lute tablature, and once the tuning is known the transcription presents few difficulties. It is often impossible to tell for which instrument a tablature was intended until, by process of elimination, the tuning has been discovered, and this can sometimes be a lengthy process. Special harp tablatures were used in Ireland and Wales during the Middle Ages, and some features of their notation show surprising analogies with neumatic or ancient Greek notation; one of them (**GB-Lbl** Add.14905) purports to be a 17th-century copy of music played at a bardic congress of the late 11th century, but the music itself and its notation make this extremely unlikely (see Robert ap Huw). The surviving sources are too few and too meagre to deserve detailed description of their tablature systems. The Spanish keyboard tablature used by Arauxo, Cabezón, Venegas and Ribayaz was also suitable for the guitar, harp and vihuela (perhaps bowed), according to the title-pages of many of their works. 17th-century sources containing tuning instructions such as 'high harpway sharp' or 'ton de la harpe par b mol' are for lyra viol or perhaps lute, but not for harp.

(ii) Bowed instruments.

Much 17th-century lyra viol music was written in French lute tablature, and since some of the many lyra viol tunings were identical with contemporary lute tunings the question sometimes arises as to the instrument for which a certain composition was intended. There are usually two clues: in lyra viol music there are no gaps between the component letters of a chord, since it is impossible on a bowed instrument to omit one string when playing those on both sides of it; and all lyra viol music uses staff notation rhythm signs. Lyra viol tuning is often indicated at the beginning of a piece, the first letter of a pair shown for a string being the fret required to be stopped for that string to be in unison with the string above (ex.17).



Ex.17

A certain amount of early viol and violin music is found in Italian tablature and there is a little 16th-century viol music in German tablature. Its mainly homophonic texture readily distinguishes it from lute music. *Lira da gamba* and baryton (*viola di bordone*) music is occasionally found in French tablature; as with music for lyra viol it may be identified by its tuning and by the disposition of the chords. A number of systems using figures have been used during the last two centuries for instruments such as the English guitar, zither, autoharp, balalaika, guitar and accordion, none of great interest or importance. One rather unexpected modern example of true tablature should be mentioned, however; it is for the ukulele, and is a schematic representation of the strings and frets of the instrument, with dots marking the position of the left-hand fingertips.

6. Wind instruments.

Diagrams representing the finger-holes of wind instruments such as the clarinet, fife, flageolet, galoubet, oboe, recorder and so on showing which holes should remain open and which should be closed to produce certain notes and trills, have been a common feature of instrumental tutors since 1535 and have never lost their value and appeal. Mersenne's *Harmonie universelle* (1636-7) is a valuable source of a wide variety of such diagrams. Many tablatures of this nature ought more accurately to be described as 'fingering charts', since their use for the notation of music was at best limited, and mainly confined to late 17th-century music. Sufficient pictorial evidence exists to suggest that, for players of such instruments, the use of staff notation was very much the rule rather than the exception. Even so, 'dot-way' notation, as it was called, was in widespread use among English enthusiasts of the flageolet, and it survived into the 18th century. Six lines represented the six finger-holes of the instrument; a short vertical stroke on a line indicated that the hole in question was to be closed, a horizontal line through a stroke that it was to be played an octave higher, and a large comma that a grace note was called for. Rhythm signs, one to each note, were placed above the 'staff', and the music was barred regularly. Articulation, when shown, was notated by slurs (ex.18).



Ex.18

Another tablature, for recorder, is found in Sebastian Virdung's *Musica getutscht* (1511), but as it was apparently not used for practical music it does not justify detailed explanation; a dot in a circle indicated that all the holes were closed, 1 that the bottom hole was open, the figure 2 with a diagonal

stroke through it that the second was open, 2 that the bottom two holes were open and so on. A derivative of this system was in use in 17th-century music for the musette, but at no time did it completely replace staff notation. A special system of tablature was used by the Russian horn bands of the late 18th century; a band consisted of ten to 50 players, and as each was required to produce a note of only a single pitch all he needed to know was the rhythm and dynamic markings of his part. This was shown in staff notation on a single line with special signs for rests. Other systems for notating rhythms alone have been used for hunting horns, trumpets and drums, but since they ignore the element of pitch they do not rank as true tablatures.

7. Figured bass and similar chordal notations.

A distinction must be drawn between the accumulations of figures found in textbooks on figured bass and harmony, and those found in actual musical practice. The latter may be considered as a part-tablature, since their use constituted a valuable system of musical shorthand, conveying a great deal of information clearly and succinctly. The figured bass principle still fell short of a true tablature in two important respects: it required the retention of staff notation for the bass line; and a figured bass part was never intended to convey the detail of a continuo part but merely its most important harmonic and melodic features – only in exceptional cases, for instance, did the figures delineate the octave in which the various intervals above the bass were to be placed. Even so, it probably remains the only tablature which, although long since discarded for the notation of music, is still used in performance (for a full discussion *see* Thoroughbass). Certain other systems of chordal notation must be classed as true tablatures, for example Gottfried Weber's system of upper- and lower-case letters to indicate major and minor chords, or roman numerals to indicate root-position chords on various degrees of the diatonic major scale, system first expounded in his *Versuch einer geordneten Theorie der Tonsetzkunst* (1817–21). Hugo Riemann's functional harmony notation, proposed in his *Vereinfachte Harmonielehre* (1893), is another important tablature and is of great value in the analysis of classical harmony. It uses a combination of capital letters and signs of various kinds to denote the principal chords of a key and their variants. Numerous new systems of musical notation and shorthand have been proposed during the last three centuries, but only those that dispense completely with the conventional five-line staff can be classed as true tablatures. Most, in any case, were too short-lived or too fanciful to be dealt with in detail here (but *see* Notation, §III, 5, (iv), Notation, §III, 6). The Braille system of musical notation for the blind (1829–34) must be mentioned, however. Its basis is a frame of six dots grouped as a rectangle; a large number of different and distinguishable symbols are available by embossing any dot or combination of dots on the paper, and by the use of various ingenious contractions and abbreviations both melody and harmony can be speedily notated and equally quickly deciphered (*see* Braille notation).

8. Vocal music.

Attempts at devising vocal tablatures had been made as early as 1600 or so, but none of them was very successful or important, nor were they true tablatures, since they did not completely dispense with the five-line staff. An extension of Venegas's system of Spanish keyboard tablature (*see* §2(iv) above) was used for vocal music in William Braythwaite's *Siren coelestis* (London, 1638), an illegally printed English edition of Catholic motets by Georg Victorinus which had first been issued in Munich in 1616. Braythwaite's system (ex.19) was both complex and unattractive, being based predominantly on minor

modifications of a single typographical fount of the numerals 1 to 7; the system required no fewer than 231 symbols, and must have proved extremely unpopular with singers if it was ever used for music-making. Its only advantage was that it required no music type and nothing that an adventurous jobbing printer would not have had in stock.

Ex.19

Tonic Sol-fa, which dates from 1812, is the only other vocal tablature of any importance (*see* Tonic Sol-fa).

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For further bibliography *see* Sources of instrumental ensemble music to 1630; Sources of keyboard music to 1660; Sources of lute music.

See also

Intabulation

Tonic Sol-fa