

# Chapter 1

## The Musical Notation of B.M. Add. MS 14905

The most formidable obstacle to the interpretation and transcription of the music of this MS is presented by the notation, of which B.M. Add. MS 14905 and B.M. Add. MS 14970 furnish the only extant examples. From the time of the earliest recorded attempts at decipherment in the early eighteenth century until the present day this problem has been a source of continuing doubt and controversy.

There has been uncertainty even with regard to the instrument for which this tablature was intended. In a letter to Richard Morris in 1770, (B.M. Add. MS 15021, f. 31 b.), evidently with reference to B.M. Add. MS 14905,<sup>1</sup> John Jones of Jesus College Oxford states the following: "By the method of pricking observed in the Run [?] throughout it seems to me that it was designed for the *Crwth* as well as the Harp which if it was the case from the nature of that instrument I conclude that it has a noble effect in a Concert."

The general assumption during the 18th and early 19th centuries appears, however, to have been that this is music for the harp. Thus Burney writes: "If, however, incredulity could be vanquished with respect to the account which Giraldus Cambrensis gives of the state of music in Wales in the twelfth century, it would be by a Welch MS, in the possession of Richard Morris, Esq., of the Tower, which contains pieces for the harp which are in full harmony or counterpoint"<sup>2</sup>

John Thomas, Bardd y Brenin, expresses a quite different opinion in an article entitled 'The Musical Notation of the Ancient Britons'<sup>3</sup>: "The only way to account for the chords being in an inverted position, is by a conviction I have long felt that the greater part if not all, of the music contained in the Welsh Manuscript is

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<sup>1</sup> The letter begins: " 'Tis with the Highest Pleasure that I embrace the present opportunity for which I am indebted to your worthy friend Sir John Peshall to thank you on my behalf for your generous communication of that most invaluable MS to my good friend W & Hale [Hall?] who has favoured me with a free access to it." Since B.M. Add. MS 14905 had been in Richard Morris' possession since the death of his brother Lewis in 1765, this is probably the MS referred to.

<sup>2</sup> Charles Burney: 'A General History of Music' (1782), vol. 2, p. 110.

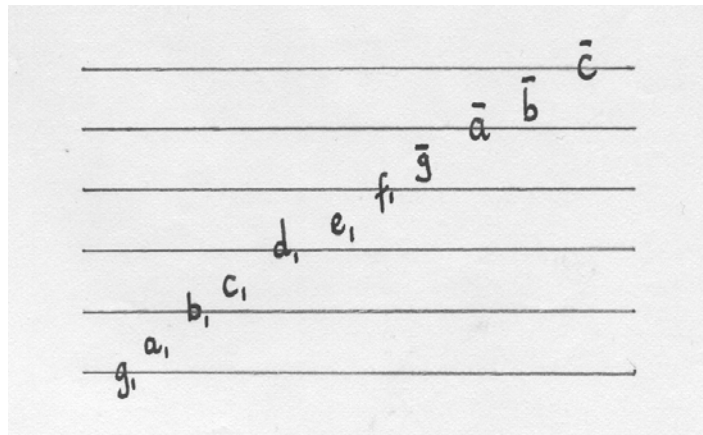
<sup>3</sup> John Thomas: 'The Musical Notation of the Ancient Britons' in the 'Myvyrian Archaeology of Wales' (1870), p. 1215.

written, not for the harp, as supposed by Dr. Burney, and others, but for the crwth..."

Thomas supports this contention firstly by echoing Burney's observation that one of the most frequently occurring chords in the [11] lower part appears to be the second inversion of the chord of C: g, - c, - e, and suggesting that if the music were intended for the harp, the fundamental note of these chords would be added, "more especially as the finger that would have played them in that instrument would have been at liberty."

Secondly, with regard to the names of the ornament signs used in the tablature, such as *tagiad y fawd* and *plethiad byr* he states: "It would be quite impossible for anyone acquainted with the harp to apply any of the above forms, either to the manner of playing on that instrument, or to any music ever written for it. On the other hand, I am decidedly of the opinion that they directly refer to the *crwth*."

As a coup de grace, John Thomas draws the reader's attention to the diagram of tunings to be found on p. 108 of Add. MS 14905, and states: "My chief object in noticing them [the tunings] is to call special attention to the lines which connect the letters in the different parts of the scale. It will be observed that there are six of these lines and that they are attached on the left side to the letters g, b, d, f, a and c, thus:



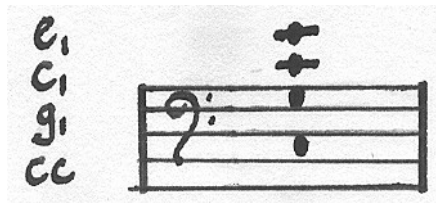
[12] "This being the case in each instance, I am strongly impressed with the conviction that the lines represent the strings of the crwth, and that the letters give a clue to the manner of tuning that instrument. I am aware that another method of tuning the crwth has been recorded,<sup>4</sup> but it is so unlike the manner of tuning any of the instruments of that kind, and apparently so unpractical that the matter has hitherto been involved in the greatest uncertainty."

<sup>4</sup> The tuning here referred to is that of the 'General History of Music' (1875) Vol. 1, p. 266, as follows:

1 2 3 4 5 6

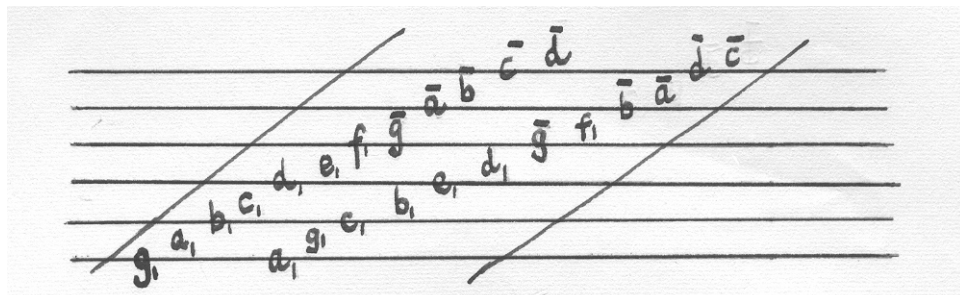
The Hypothesis expounded in the above quotations, though ingenious, is in fact contradicted by the evidence of the music, the text and the diagrams of MS. 14905. Each of his three supporting arguments may be refuted by a close examination of the material.

Taking these arguments in order, firstly, Thomas, in citing the '6-4 chord', appears to be limiting his analysis of the musical texture to the section of the MS from p. 23 to p. 34, which sets out standardised improvisation - figurations on the harmonic patterns of the twenty-four measures (see chapter 4, p. 169). In the MS there are plentiful examples of full triadic chords, based on the fundamental note, particularly in *Caniad Cynrhig\_Bencerdd*, p. 46, where the lower hand of a harpist would be fully occupied with the chord



to such an extent that a scordatura is necessary to bring the lowest note within his span (see chapter 2, p. 72). As regards the second argument, our discussion of the ornament signs of the tablature and their names in chapter 3 should make it clear that although all direct knowledge of their purpose and significance had been lost, even to professional harpists, long before the time of John Thomas, they were, in fact, an essential part of the technique and idiom of Welsh harp playing up to about the middle of the 17th century.

Thirdly, the table of tunings on p. 108 of the MS cannot possibly lend itself to John Thomas' interpretation. It is not true that the letters of each 'scale' encompass six of the lines drawn through the [13] page: the first such scale extends only from g, on the first line to ā on the fifth. Furthermore, Thomas chooses to ignore the second row of letters in each scale-diagram, which in some cases are out of order, for example in *kower dierth* (the strange tuning):



It cannot be imagined that a letter in a space could represent a note played by stopping the *crwth* string denoted by the letter on the line immediately below it.

As we shall see in chapter 2, these tables are far more likely to represent unusual tunings for the harp, as suggested by Thurston Dart.<sup>5</sup>

Abundant evidence demonstrating the improbability of Thomas' theory will be presented in the course of this work. At this point it should suffice to draw attention to various verbal canons in the MS duly noted by Pencerdd Gwalia in the preparation of his transcriptions of the 'twenty-four measures' but conveniently ignored by him in the exposition of his thesis.

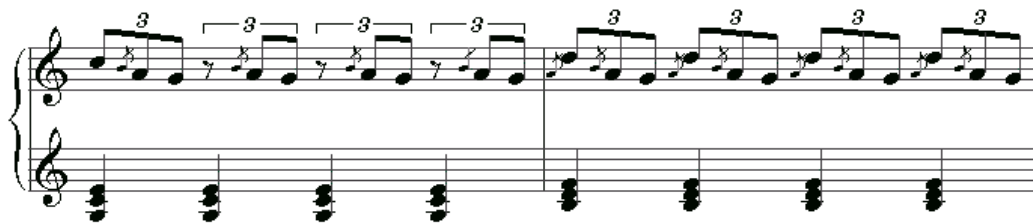
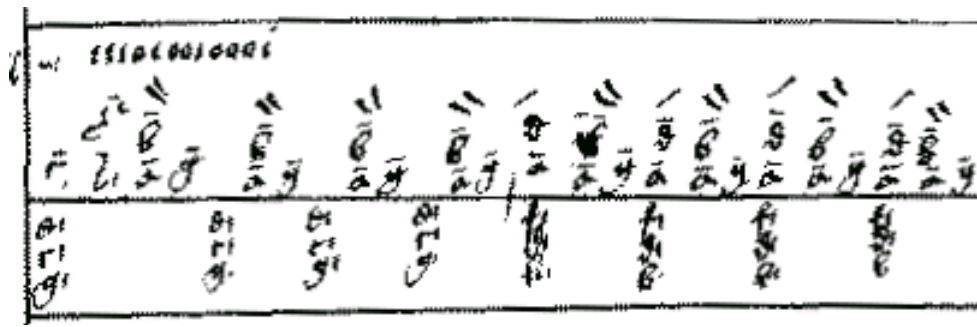
At the end of the fifth section of the *cwlwm* on *Mak y mwn hir* (p.24, system 4) Robert ap Huw gives the following instruction: "y chweched gainc a genir fal y bumed ond kodi dau dant ar y fawd ucha" (The sixth *cainc* is played like the fifth, but move the upper thumb up two strings.)

This simply means that whichever notes are played by the thumb in *cainc* 5 should be replaced in *cainc* 6 by the notes two strings above the original ones. It is difficult to conceive that this instruction could apply to any instrument other than the harp. Assuming that a diatonically tuned harp is intended here, then the notes c and d played by the thumb in *cainc* 5 would be replaced by e and f respectively in *cainc* 6 (see Fig. 1). Ap Huw's intentions regarding fingering may be quite definitely inferred, as we shall see in Chapter 3.

[14] Fig. 1 *Cwlwm cydgerdd* on the measure *mak y mwn hir*, *cainc* 5

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<sup>5</sup> Thurston Dart: 'Robert ap Huw's Manuscript of Welsh Harp Music, 1613' in the 'Galpin Society Journal', March 1968, p. 57.



*cainc 6:*



Commentators in the present century have been in no doubt that Thomas was completely mistaken on this point, and that the tablature is intended solely for the diatonic celtic harp.

Thus, with reference to John Thomas' suggested tunings to accommodate the range of the tablature to the *crwth*<sup>6</sup> Dolmetsch<sup>7</sup> states: "Convinced that he had proved that our Welsh music was not written for the harp, Thomas now proceeds to show that it is playable on the *crwth*. In order to do this, he devises a tuning of the six strings in a series of thirds starting from the G below the F clef, to suit some of the pieces. For the others, the instrument should be transposed a fifth down, its lowest note being then in unison with the low C of the violoncello. This might do for some of the chords of the simpler measures, but what about [15] the melodies and the other pieces? Has he tried to tune an instrument of which the strings are slightly shorter than those of the violin one and a half octaves lower than the violin? It is a physical impossibility. He has also lost sight of the fact that the two lowest strings of the *crwth* are drones. They lie outside the fingerboard and can only be played open. This would deprive the player of several notes indispensable to the chords."

<sup>6</sup> John Thomas, op. cit., p. 1216.

<sup>7</sup> Arnold Dolmetsch: 'Concerning my Recent Discoveries' in 'The Consort' no.3 (June 1934), p. 10.

There is no doubt, therefore, that while some of the repertory of music contained within the MS could be played on the *crwth* either alone or together with a harp, since many of the titles of pieces in the MS occur also in lists of pieces for the *crwth*, the actual intabulations were intended exclusively for the harp.

The tablature under discussion is a letter-notation using the following range of symbols:

cc dd ee<sup>8</sup> ff g, a, b, c, d, e, f, ḡ ā b̄ c̄ d̄ ē f̄ ḡ a' b' c' d' e' f' ḡ

The fundamental question regarding the above symbols has been whether they constitute a pitch notation, like German or Spanish keyboard tablatures, a finger notation like lute tablature, or a hybrid of both. The surviving transcriptions by all commentators before Dart, particularly Bartholomon, Burney, John Thomas and Dolmetsch, all rest on the assumption that the letters of the tablature refer to their modern pitch equivalents, allowing for chromatic inflections arrived at through various interpretations of the 'five keys of Welsh Music' (see Chapter 2). Burney noted a superficial resemblance to lute tablatures "but without lines, except a single line to separate the treble from the base."<sup>9</sup> He did not, however, carry the comparison further, and in his musical example was content with a literal transcription of the alphabetical symbols.

His brief reference to lute tablature appears to have started the violinist Bartholomon on a false trail which was the cause of some unnecessary confusion in later commentaries, as we see in the following [16] two passages by John Parry (Bardd Alaw) and John Thomas (Bardd y Brenin), respectively: "Since Dr. Burney's time, the whole of this specimen was submitted, by the erudite Mr. William Owen Pugh, to Bartholomon, the celebrated violinist. Bartholomon succeeded in deciphering most, if not all of it: adopting, as the basis of his experiment, the notation of the ancient Spanish lute, as in use during the sixteenth century, which agrees with what Dr. Burney says of the conformity of the Welsh notation, with the tablature of that instrument."<sup>10</sup>

"Dr. Burney, Bartholomon, and Sir John Hawkins, were under the impression that the Welsh system of notation was taken from the tablature of the Spanish lute, the viol da braccia, and the viol da gamba, the idea enabled Dr. Burney and Bartholomon to decipher a very small portion of that part of the Welsh Manuscript which happened to be in the key of C."<sup>11</sup>

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<sup>8</sup> No examples of this symbol occur in the available material.

<sup>9</sup> Burney, op. cit., vol. 2, p. 111.

<sup>10</sup> John Parry: Introduction to the 'Welsh Harper' (1839,38), p. 5.

<sup>11</sup> John Thomas, op. cit., p. 1209.

Burney is, of course, guilty only of being misinterpreted by these later writers, since he does not suggest that lute tablature could actually be used as a basis for the transcription of the Welsh music. Parry's account of the breakthrough of Bartholomon evidently rests on a similar misunderstanding since it is quite impossible that the Welsh tablature could be analysed in terms of 16th century vihuela tablature. The latter, like Italian lute tablature, is a highly specialised notation using numerals to indicate the frets on the fingerboard, beginning with 0 for an open string, these symbols being disposed on six horizontal lines which represent the strings or courses of the instrument.<sup>12</sup> However, from the one surviving piece transcribed by Bartholomon (*Cainc Dafydd Brophwyd*, printed on p. 1211 of the 'Myvyrian Archaiology of Wales') it is clear that his 'breakthrough' consisted merely in the free addition of notes and chords to a literal transcription essentially no different from those of his predecessors.

After his discussion of the theories attributed to Burney and Bartholomon, John Thomas mentions the resemblance between the alphabetical symbols of the Welsh tablature and the 'Odonian' Latin letter notation, which, in the passage from Hawkins quoted by Thomas,<sup>13</sup> is [17] attributed to Gregory the Great. This point is taken up by Robert Griffith ('Llyfr Cerdd Dannau', p.28): "With reference to the strange notation in which the 24 measures of Cerdd Dant were written, it is the opinion of some that it was the Gregorian notation, and that St. Augustine brought it to Wales."<sup>14</sup> Griffith is not, however, willing to draw too close a parallel between the Welsh and 'Gregorian' notations: "for the same letters are used in the one as in the other; but the method of placing these letters to show the notes [itches] differs greatly; and the Welsh notation, it is thought, is much more difficult to understand and read than the other."<sup>15</sup>

A more fruitful line of attack is opened up by John Thomas, who notes a much stronger parallel between the Welsh notation and the symbols used in a diagram of the keyboard on p. 37 of the Musurgia of Ottomaro Luscino (Ottmar Nachtigall), printed in 1536.

He does not, however, observe that this diagram refers to the symbols of German organ tablature. Commentators in the present century, notably Peter Crossley-Holland,<sup>16</sup> Zingel<sup>17</sup> and Kidson<sup>18</sup>

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<sup>12</sup> See Johannes Wolf: 'Handbuch der Notationskunde', vol. 2, p. 106.

<sup>13</sup> John Thomas, op. cit., p. 1208.

<sup>14</sup> "Mewn perthynas i'r nodiant dieithr yn yr hwn y mae y 24 Mesur Cerdd Tant wedi eu hysgrifennu, bernir gan rai mai y nodiant Gregoraidd ydyw, ac mai Austin Fynach a'i dygodd i Gymru."

<sup>15</sup> "...canys yr un llythrennau a arferir gyda'r naill a'r llall; ond y drefn o osod y llythrennau hynny i ddangos y nodau yn wahanol iawn; a'r nodiant Cymreig, meddir, yn llawer mwy anhawdd i'w ddeall a'i ddarllen na'r llall."

<sup>16</sup> Peter Crossley-Holland: 'Secular Homophonic Music in Wales in the Middle Ages', in 'Music and Letters', Vol. 23 (1942), PP. 137-8.

<sup>17</sup> 'Harfe und Harfenspiel' (Halle, 1932;), p. 72.

have also remarked in passing upon this resemblance. Zingel makes this general statement about the relationship between harp and organ notations: "Quite distinct from the relationship between lute and harp notations is the relationship between the latter and organ or keyboard tablature. This forms, whether in letters or numbers, the direct parallel to harp notation. For every note there is a special key (string); the sequence of the keys corresponds to the succession of strings on the harp, except for the missing chromatic notes on the 'simple harp'... In this connection the observation of H.J. Moser comes to mind, that in the 15th century organ tablature was used also for the harp. Since in the course of the centuries keyboard (organ) and harp tablatures correspond to each other while remaining essentially unchanged, this suggestion is confirmed."<sup>19</sup>

In the following table, which sets out the symbols used in the various forms of the so-called German organ tablature, the similarity between these and the Welsh notation can clearly be seen:

[18]

Robertsbridge (B.M. Arundel 28550):	a b <u>h</u> c d e f g	} 20
	(octave levels not distinguished)	
Paumann, <i>Fundamentum Organisandi</i> :	h c d e f g a b <u>h̄</u> <u>c̄</u> <u>d̄</u> <u>ē</u> <u>f̄</u> <u>ḡ</u> <u>ā</u> <u>b̄</u>	
Buxheimer Orgelbuch:	F G A B H c d e f g a b h <u>c̄</u> <u>d̄</u> <u>ē</u> <u>f̄</u> <u>ḡ</u> <u>ā</u> <u>b̄</u> <u>h̄</u>	
Sebastian Virdung:	<u>f</u> <u>g</u> <u>a</u> <u>b</u> <u>h</u> <u>c</u> <u>d</u> <u>e</u> <u>f</u> <u>g</u> <u>a</u> <u>b</u> <u>h</u> <u>c</u> <u>d</u> <u>e</u> <u>f</u> <u>g</u> <u>a</u> <u>b</u> <u>h</u> <u>c</u> <u>d</u> <u>e</u> <u>f</u> [F G A B H C D E]	
Hans von Konstanz:	F G A B h c d e f g a b <u>h̄</u> <u>c̄</u> <u>d̄</u> <u>ē</u> <u>f̄</u> <u>ḡ</u> <u>ā</u> <u>b̄</u> hh cc → bb	
Elias Nicolaus Ammerbach:	<sup>21</sup> E F G A H c d e f g a b <u>h̄</u> <u>c̄</u> → <u>b̄</u> <u>h̄</u> <u>c̄</u> → <u>c̄</u> <sup>22</sup> <u>C</u> <u>D</u> <u>E</u>	

<sup>18</sup> Grove: 'Dictionary of Music and Musicians' (4th edition): 'Welsh Music', p. 688.

<sup>19</sup> "Im Gegensatz zu dem Verhältnis von Lauten- und Harfennotation steht die Beziehung der Letzteren zur Orgel- oder Klaviertabulatur. Diese bildet, sei es in Buchstaben oder Ziffern die direkte Parallele zur Harfennotierung. Für jeden Ton liegt eine besondere Taste (Saite) vor, die Folge der Tasten entspricht der Saitenfolge der Harfe, ausgenommen die fehlenden chromatischen Töne bei der 'einfachen Harfe' ..... Ribayaz schildert die Parallelität in Text und Zeichnung. In dieser Zusammenhang fügt sich die Bemerkung H.J. Mosers, dass im 15. Jh. die Orgel tabulatur für die Harfe Geltung gehabt habe. Da sich im Verlauf der Jahrhunderte Klavier- (Orgel-) und Harfentabulatur im Wesentlichen gleichbleibend gegenüberstehen, ist die Vermutung berechtigt."

<sup>20</sup> Upper (and sometimes middle) part using mensural notation; lower (and sometimes middle) part, alphabetical tablature.

<sup>21</sup> Alphabetical tablature in all parts.

<sup>22</sup> Short octave.



The most striking point of resemblance, besides the use of recurring alphabetical symbols, is the method of distinguishing the notes of the first upper octave, with a single horizontal dash above the letter, a practice which is restricted to the two types or tablature under discussion, with the notable exception of an Irish harp tablature mentioned by Johannes Wolf,<sup>23</sup> which will be discussed later in the chapter, and the harp tablature found in the 'Luz y Norte Musicale' of Ruiz de Ribayaz (1677) which uses the symbols:



There are no further points of resemblance between the two types of tablature. Thus the symbol h (or in Robertsbridge  $\text{h}$ ) occurs nowhere in the Welsh notation, which in accordance with its omission of all signs for accidentals, apparently uses the letter b indiscriminately for both B $\flat$  and B $\natural$ .<sup>24</sup>

Further, the distinguishing marks used for all other octave levels in the Welsh notation besides the one mentioned above, differ completely from the more logical extension of the idea of horizontal dashes found for example in the tablature of Virdung.<sup>25</sup> In the 'New [19] German' organ tablature, beginning with 'Orgel oder Instrument Tabulatur' of E. N. Ammerbach, in 1571, unlike the Welsh tablature, the horizontal dashes above successive notes of the same octave-level are joined together to form continuous lines. It seems, therefore, that the point of contact (direct or indirect) which we can postulate between the Welsh and German methods of notation must have occurred before 1571, and after about 1450 (the date of the Lochamer Liederbuch: Berlin Oeff. wiss. Bibl. MS 40613, the main source of Conrad Paumann's *Fundamentum Organisandi*, in which the distinguishing mark for the first upper octave is a mordent-like sign  $\sim$ ; only slightly later did it reach the form of a simple horizontal stroke -).<sup>26</sup>

The most fundamental distinction between the two tablatures lies in the disposition of the symbols. In 'Old German' keyboard tablature, (up to 1571) including Robertsbridge Codex (B.M. Add. MS 28550), the highest voice is presented in mensural notation on a staff of between five and eight lines, while the lower voices use

<sup>23</sup> Wolf, op. cit., pp. 293-4.

<sup>24</sup> See chapter 2, p. 70.

<sup>25</sup> Sebastian Virdung: 'Musica getuscht' (1511).

<sup>26</sup> Wolf, op. cit., p. 13.

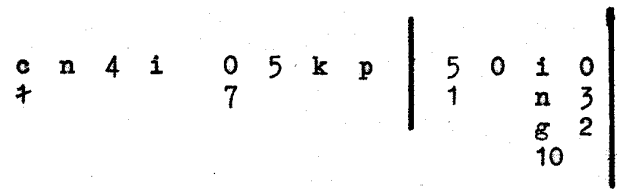
letter-notation. The use of letter-notation throughout is the main distinguishing characteristic of 'New German' tablature. Both forms, from Paumann's 'Fundamentum' onwards, arrange the different voices presented in letter-notation in separate lines, one above the other. On the other hand, the Welsh tablature arranges the symbols for the upper and lower hands respectively above and below a single horizontal line; the general musical idiom is antithetical to consistent part writing, and as a general rule the symbols in both upper and lower parts are placed as close to the central line as possible, regardless of pitch level. This practice shows a similarity to some later German lute tablatures,<sup>27</sup> for example the MS in the Stadtbibliothek Leipzig<sup>28</sup> (see Fig. 2).

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<sup>27</sup> Most German lute tablatures arrange their symbols into lines according to voices, rather than the strings of the instrument. In this they differ from their French and Italian counterparts.

<sup>28</sup> Leipzig Stadtbibl. ii. 6. 15. See Gustave Reese: 'Music in the Renaissance', p. 716.

Fig. 2. (after Wolf, op. cit, p. 41)



[20]



The second line of attack is opened up by Dolmetsch in his response to the theories of Bartholomon and Thomas: "It appears that Dr. Burney, the famous musical historian, described this notation, circa 1770 as one 'by letters of the alphabet, somewhat resembling the tablature of the lute, but without lines, except a single line to separate the treble from the base. There is no resemblance between the two tablatures, the only notation with which it [the Welsh tablature] has any affinity is that of the old Spanish harp."

This idea is taken up by Dart,<sup>29</sup> who says: "In structure the tablature resembles a cross between the tablatures used by Bermudo<sup>30</sup> (1555) and Cabezon<sup>31</sup> (1578)."

Bermudo gives a description of his harp tablature in chapter 92 of the 'Declaracion', f. 112a, entitled 'Del modo de cifrar Para este instrumento.' (On the manner of notating [in numbers] for this instrument). The system he recommends for the simple, diatonic harp (harpa comun) is identical with the first of two keyboard tablatures which are described on fol. 83. In chapter 87 (fol. 110b) Bermudo states that the number of strings may vary (No ay numero de cuerdas determinado para este instrumento), but often it is put at 24, comprising the whole Guidonian hand (Γ to e") plus the four notes below the gamut to 'cello C. In the tablature the strings are numbered consecutively as follows:

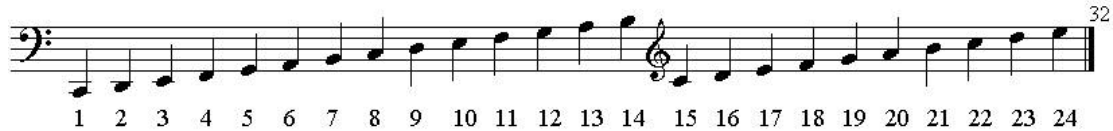
<sup>29</sup> Dart, op. cit., p. 74.

<sup>30</sup> Juan Bermudo: 'Declaracion de Instrumentos Musicales' (1555)

<sup>31</sup> Antonio de Cabeçon (published by his son, Hernando): 'Obras de musica para tecla, arpa y vihuela' (Madrid, 1578).

<sup>32</sup> "Si en quarto modo comiença el contrabaxo en Elami grave el tenor en el mide b fa mi, el contra alto en elami agudo, yel tiple en g solreut agudo: en el contrabaxo ponga el numero de diez, en el tenor quatorze, en el contra alto diez y siepte, en el tiple diez y nueve, y assi de todos los otros puntos." (f. 112b). ("If in the fourth mode the contrabass begins in elami grave, the tenor in the middle b fa mi, the contra alto in elami acute, and the triple in 9 solreut acute,

[21]



For the diatonic harp, the particular tuning is to be indicated above the tablature: "Si cifraren para la harpa comun, sobre las cifras se ponga que cuerdas han de abaxar, o alçar el dicho semitono mayor." The tablature is set out as follows: each voice is given a separate line (regla) upon which the numerical symbols are placed. "The lowest is for the contrabass, the second [other] for the tenor, the third for the contra alto, and the fourth for the triple."<sup>33</sup>

As Bermudo explains in connection with the keyboard tablature, special signs for rhythm are dispensed with almost entirely. Vertical lines (virgulas) divide the tablature into regular metrical groups each having the value of one semibreve. Thus, paying particular attention to the vertical alignment of the symbols in any particular metrical group, if only one pulse (golpo) is evident, then it will have the value of a semibreve; if two, then two minims, if four, then four semiminims, and if three, then a minim and two semiminims, "or a dotted minim and two *corcheas* [fusae]. In such a case where there are doubtful symbols, it is necessary to insert [rhythm] signs. Then, putting a dotted minim [sign] above the symbol which is a minim, and has the value of a dotted minim, the [value of the] other two symbols [becomes] obvious".<sup>34</sup> Values greater than a semibreve are indicated by the required number of symbols joined by a tie (*calderon*). In the absence of rhythm signs in the greater part of MS 14905, an analogous system may be postulated and is found to produce quite satisfactory results in practice (see chapter 4).

[22] Apart from the method of rhythmic interpretation, it is difficult to see any resemblance between the two types of tablature significant enough to justify Dart's statement quoted above. Bermudo's tablature appears to be a largely original rationalisation of a primitive system which he describes as follows: "Some people use another type of notation, whereby they make as many [horizontal] lines as there are strings on their harp, and through these the notes are indicated."<sup>35</sup> Thus a separate symbol is not

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in the contrabass put the number 10, in the tenor 14, in the contra alto 17, in the triple 19, and similarly for all the other notes.")

<sup>33</sup> "La mas bassa regla es para el contrabaxo, la otra para el tenor, la tercera para el contra alto, y la quarta para el tiple."

<sup>34</sup> "O la minima con puntilla y las dos corcheas. En tal caso por ser las cifras dudosas: es menester poner senales. Pues poniendo sobre la cifra que es minima y la que tiene valor de minima con puntillo, una minima con puntillo: quedan las otras dos cifras claras."

<sup>35</sup> "Otra manera de cifras usan algunos, y son que hazen tantas rayas quantas cuerdas tiene su harpa, y por alli senalan los golpes."

required for each note, but a single stroke which, according to the line upon which it is placed, may indicate any pitch.<sup>36</sup>

The tablature of Cabeçon belongs to a family of Spanish tablatures intended, for the most part, for realisation on the keyboard (organ), harp, and in some cases, vihuela: "That numbers were in fact used for the notation of harp music, is proved by the Spanish literature. Even from the titles of publications it is clear that keyboard, lute and harp shared the same repertoire, and thereby made use of the same notation."<sup>37</sup>

The work cited by Dart, the 'Obras de musica para tecla arpa y vihuela,' (1578) in which the music of Antonio de Cabeçon was intabulated and published by his son, Hernando, is representative of this corpus. His numerical symbols are shown in Fig. 3, taken from Wolf op. cit., p. 301.

Fig. 3:

	C	D	E	F	G	A	H	c	d	e	f	g	a	h	c'	d'	e'	f'	g'	a'	h'	c''	d''	e''	f''	g''
Vinegas de Henestrosa <sup>38</sup>	5	6	7	1.	2.	3.	4.	5.	6.	7.	1	2	3	4	5	6	7	1'	2'	3'	4'	5'	6'	7'	1'	2'
Cabeçon; Correa de Arrauxo <sup>39</sup>	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1'	2'	3'	4'	5'	6'	7'	1'	2'
Ruiz de Ribayaz <sup>40</sup>	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1.	2.	3.	4.	5.	6.	7.	1̂	2̂

All the systems shown in Fig. 3 are improvements on the notation of Bermudo, in that only the numbers 1-7 are used, corresponding to the octave f-e, and differ from each other only in their methods of distinguishing octave-levels. The only direct resemblances to the Welsh [23] tablature are found in the fourth octave-level of Henestrosa<sup>38</sup>, Cabeçon and Arrauxo<sup>39</sup>, which uses a dot at the top right hand side of the symbol (cf. Welsh g'), and the

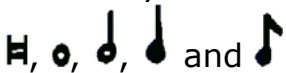
<sup>36</sup> A very similar notation is found in 'Tres libros de musica en cifra para vihuela' (Seville, 1546) of Alonso Mudarra: transcription and commentary by Emilio Pujol (Barcelona, 1949). A system of 14 lines is used, both lines and spaces corresponding to the strings of the harp, or the notes of the keyboard. The only symbol used is I.

<sup>37</sup> Wolf, op. cit., p. 301: „Dass die Zahlen in der Tat der Aufzeichnung von Harfenmusik gedient haben, beweist die Spanische Literatur. Schon aus den Titeln der Drucke wird offenbar, dass Klavier, Laute und Harfe sich in die gleiche Literatur teilten, und damit die gleiche Notation sich in Anspruch nahmen.“

<sup>38</sup> Vinegas de Henestrosa: 'Libro de cifra nueva para tecla harpa y vihuela' (Alcala, 1557).

<sup>39</sup> Francisco Correa de Arrauxo: 'Libro de tientos y discursas de musica pratica' (Alcala, 1626).

second octave-level of Henestrosa, which has a dot on the lower right hand side (cf. Welsh *g*,). Whether these resemblances are sufficient to indicate a link between the two tablatures is open to question.

Rhythmic values are indicated by Cabeçon by the note-shapes  above the tablature. The succession of rhythm signs above the tablature applies to the rhythmic movement of the entire musical texture, regardless of part-writing. When a group of identical rhythmic values occurs, only the first of the group is given the relevant rhythm sign, which applies to all succeeding values until it is cancelled by a different sign.

In connection with the Spanish notations, we may mention the resemblance between the Spanish word *diferencia*, applied by the above-mentioned composers to a variation form, often on a dance melody, or ground, (such as "Diferencias sobre las vacas"<sup>40</sup>) and the Welsh word "difr" which although not used by ap Huw in B.M.Add.I4905 occurs in several 16th and early 17th. century lists of harp and *crwth* pieces (e.g. *Cwlwm difr brath yn ysgol*),<sup>41</sup> possibly in the sense of a variant of a well-known *measure*.<sup>42</sup>

The format of these related Spanish tablatures differs only slightly from that of Bermudo. Again a system consisting of as many lines as there are voices is used, with the exception of the examples in 'Luz y Norte Musical' of Ribayaz. Exceptionally, this latter tablature is intended specifically for the harp. The system has four lines, the upper three of which are reserved for the right hand, the lowest for the left. This separation of the hands, a specially significant attribute of the Welsh notation, and unique in the Spanish tablature-family, while perhaps showing a relationship to the Italian keyboard notation in mensural notation on two staves, also points towards the tablature of Valente, which we shall discuss shortly. A further similarity to the Welsh tablature lies in the complete lack of special signs for rhythm, the system being divided into equal metrical units as in the notation of Bermudo.

[24] The one type of continental tablature which in format resembles the Welsh notation most closely has passed almost unnoticed by commentators on B.M. Add. 14905. This is used in the 'Intavolatura de cimballo' of Antonio Valente (1576),<sup>43</sup> and is intended exclusively for stringed keyboard instruments. The notation is explained fully in Valente's preface.

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<sup>40</sup> Ruiz de Ribayaz: 'Luz y Norte Musical' (Madrid, 1677).

<sup>41</sup> Cardiff MS Havod 24, p. 809; B.M. Add. MS 14939, f. 38a: *Cwlwm Diffr Carsin*, etc.

<sup>42</sup> See chapter 4.

<sup>43</sup> The single extant copy is in the Biblioteca Nazionale, Naples.

Valente uses a non-recurring number system similar to Bermudo's notation for the diatonic harp, as in the following diagram:



These symbols are arranged above and below a central horizontal line, exactly as in the Welsh tablature, those above corresponding to the right hand, and those below to the left hand, as indicated by the letters D (Dritta) and M (Manca) respectively, at the start of each system. As in the Welsh tablature, and some German lute tablatures, mentioned on p. 24 supra, the symbols are arranged as close to the central line as possible, regardless of part-writing:

16	15	15	14	
14	12	13	12	14
11	10	10	10	11
		8	7	9
7	8	6	3	7

Since the numerical symbols refer to the white keys only, accidentals are shown by a cross placed above the white key immediately to the left of the desired black key. Rests are indicated simply by the letter S (sospiro) in either the right hand or left hand part, and are valid until the next appearance of numerical symbols in the same part (see Fig. 4a). Neither of these signs has any counterpart in the Welsh tablature.

Fig. 4 (From the Preface to Valente's 'Intavolatura de cimbalò')

a) \_\_\_\_\_

								x
D	14	16	S			14	13	
	12	14	10	11	13	11	11	
M	10	11	8	9	10	9	8	
		7			6	7	4	.



b)

17	18
14	15
12.	13
10.	9



[26] The rhythm signs used by Valente are as follows:

semibreve	minim	semiminim	corchea (fusa or croma)

These signs are characteristic of both Italian lute tablature after Petrucci, (*Intavolatura de Lauto*, Venice 1507), and the 'new German' organ tablature of the colorists, beginning with Elias Nicolas Ammerbach (*Orgel oder Instrument Tabulatur*, 1571)<sup>44</sup>. Valente sets the signs down according to the same principle as Hernando de Cabeçon in the 'Obras'. In addition, special

<sup>44</sup> The attribution of this system to Arnolt Schlick ('*Tabulaturen etlicher Lobgesang und Lidlein*', 1512) in Wolf, op. cit., is false, as a comparison of the facsimile on p. 21 of the 'Handbuch' with the table on p. 20 will show. For a clear exposition of the development of rhythm signs in German tablatures, see Apel: 'The Notation of Polyphonic Music'.



'punctuation' signs are used to show the exact length of time that notes in one or more parts are to be held on while other parts continue (*caminare*) with the rhythms shown above the tablature. These signs, placed after the note-symbols to which they apply are compounds of the following:

- ? = breve
  - . = minim
  - , = semiminim
  - ∪ = croma
- (see Fig. 4b.)

The system of rhythm signs placed above the tablature is almost identical to that found towards the end of B.M. Add. MS 14905. A significant addition in the latter source is the sign  $\lceil$  which very possibly finds its origins in the proportional sign  $\lceil$  (2/5 of a semibreve) described in the preface to the 'Intavolatura de lauto Secundo' of Petrucci (Venice 1507).<sup>45</sup> Unlike Cabeçon and Valente, however, Robert ap Huw gives a separate sign for successive rhythmic values, even if they are identical.

To sum up, the Welsh tablature presents elements characteristic of keyboard and harp tablatures of several different countries and periods. The recurring alphabetical symbols and the method of distinguishing the first upper octave point towards the German organ tablature of between 1460 and 1571, although the content of the octave (g-f) differs from those in most common use in Germany (h-b. c-h, f-e), and the absence of the symbol h or  $\text{h}$  indicates that the connection between the two tablatures is indirect.

[27] The layout of the symbols, rhythm signs and use of the dot to the right hand side of the symbols of the 2nd upper octave indicate a connection with the tablature of Spain and Naples, which, at the time of Valente (1576), was dominated by Spain.

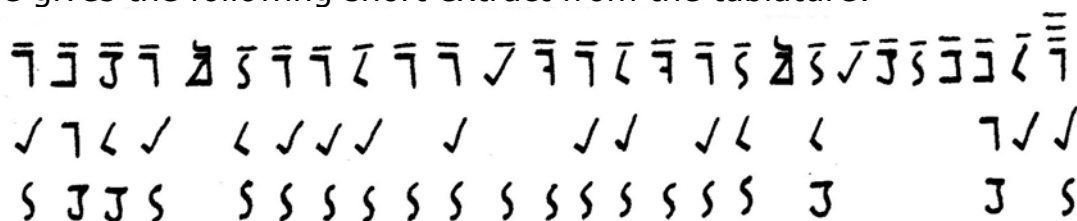
At this point we should mention an extremely interesting Irish harp tablature discussed on pp. 293-4 of Wolf's 'Handbuch'. The symbols used are, according to Wolf,

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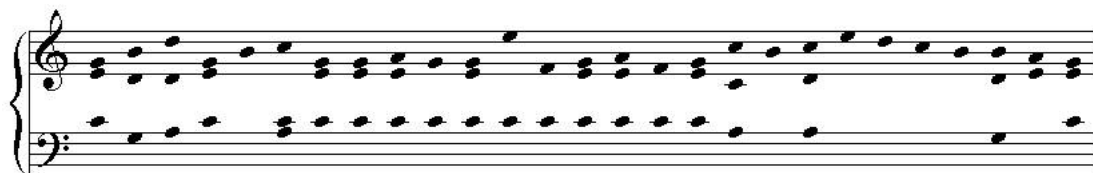
<sup>45</sup> Facsimile and German translation in Wolf, op. cit., pp. 53-4.






He gives the following short extract from the tablature:



which may be transcribed thus:



The most striking aspect of the tablature is the use of the horizontal line above the symbol and the dot to the top right hand to distinguish octave levels. This is the only notation besides the Welsh in which both forms occur. The use of the octave f-e (if Wolf's interpretation of the symbols is to be trusted) is reminiscent of the tablatures of Henestrosa and Cabeçon in Spain and Sebastian Virdung in Germany.

A possible further resemblance to the Welsh tablature is the use of the symbol  in which an oblique stroke is added to the note b () , of which the most likely interpretation is either a chromatic inflection [28] or an ornament. Since the tablature is most probably intended for the diatonic harp (according to Wolf it dates from the 15th/16th century), it would appear to be some kind of ornament. In that case, it is significant that its two appearances in the above example occur when the note  stands on its own, in a similar way to the occurrence of the *tremolo* ornament *plethiad y wanhyne* in B.M. Add. 14905.

Unfortunately very little information is available regarding this Irish tablature. Wolf identifies his source as "An essay on the poetical accents of the Irish" by William Beauford in Jos. Walker's "Historical Memoirs of the Irish Bards", (1786). According to Wolf,

Beauford states that the tablature is a notation invented by a monk, and is found in a manuscript of the Cavanagh family. In fact, there is no mention of the tablature in Beauford's essay; it would seem that Wolf's immediate source of information is Fetis' 'Histoire Generale de la Musique' IV, 390f., which also gives the erroneous reference to Beauford. Some lengthy and exhaustive research will be needed to secure more information regarding this extremely important MS.

Using the above comparisons with other harp and keyboard tablatures as our raw material, we may now proceed to our analysis of the tablature of B.M. Add. MS 14905.

[29]

## Notes

- 1 The letter begins: " 'Tis with the Highest Pleasure that I embrace the present opportunity for which I am indebted to your worthy friend Sir John Peshall to thank you on my behalf for your generous communication of that most invaluable MS to my good friend W &

Hale [Hall?] who has favoured me with a free access to it." Since B.M. Add. MS 14905 had been in Richard Morris' possession since the death of his brother Lewis in 1765, this is probably the MS referred to.

- 2 Charles Burney: 'A General History of Music' (1782), vol. 2, p. 110.
- 3 John Thomas: 'The Musical Notation of the Ancient Britons' in the 'Myvyrian Archaology of Wales' (1870), p. 1215.
- 4 The tuning here referred to is given by Sir John Hawkins in 'General History of the Science and Practice of Music' (1776) Vol. 1, p. 266, as follows:



- 5 Thurston Dart: 'Robert ap Huw's Manuscript of Welsh Harp Music, 1613' in the 'Galpin Society Journal', March 1968, p. 57.
- 6 John Thomas, op. cit., p. 1216.
- 7 Arnold Dolmetsch: 'Concerning my Recent Discoveries' in 'The Consort' no.3 (June 1934), p. 10.
- 8 No examples of this symbol occur in the available material. [30]
- 9 Burney, op. cit., vol. 2, p. 111.
- 10 John Parry: Introduction to the 'Welsh Harper' (1839,38), p. 5.
- 11 John Thomas, op. cit., p. 1209.
- 12 See Johannes Wolf: 'Handbuch der Notationskunde', vol. 2, p. 106.
- 13 John Thomas, op. cit., p. 1208.
- 14 "Mewn perthynas i'r nodiant dieithr yn yr hwn y mae y 24 Mesur Cerdd Tant wedi eu hysgrifennu, bernir gan rai mai y nodiant Gregoraidd ydyw, ac mai Austin Fynach a'i dygodd i Gymru."
- 15 "..canys yr un llythrennau a arferir gyda'r naill a'r llall; ond y drefn o osod y llythrennau hynny i ddangos y nodau yn wahanol iawn; a'r nodiant Cymreig, meddir, yn llawer mwy anhawdd i'w ddeall a'i ddarllen na'r llall."
- 16 Peter Crossley-Holland: 'Secular Homophonic Music in Wales in the Middle Ages', in 'Music and Letters', Vol. 23 (1942), pp. 137-8.
- 17 'Harfe und Harfenspiel' (Halle, 1932;), p. 72.
- 18 Grove: 'Dictionary of Music and Musicians' (4th edition): 'Welsh

Music', p. 688.

- 19 "Im Gegensatz zu dem Verhältnis von Lauten- und Harfennotation steht die Beziehung der Letzteren zur Orgel- oder Klaviertabulatur. Diese bildet, sei es in Buchstaben oder Ziffern die direkte Parallele zur Harfennotierung. Für jeden Ton liegt eine besondere Taste (Saite) vor, die Folge der Tasten entspricht der Saitenfolge der Harfe, ausgenommen die fehlenden chromatischen Töne bei der 'einfachen Harfe' ..... Ribayaz schildert die Parallelität in Text und Zeichnung. In diesem Zusammenhang fügt sich die Bemerkung H.J. Mosers, dass im 15. Jh. die Orgel tabulatur für die Harfe Geltung gehabt habe. Da sich im Verlauf der Jahrhunderte Klavier- (Orgel-) und Harfentabulatur im Wesentlichen gleichbleibend gegenüberstehen, ist die Vermutung berechtigt." [31]
- 20 Upper (and sometimes middle) part using mensural notation; lower (and sometimes middle) part, alphabetical tablature.
- 21 Alphabetical tablature in all parts.
- 22 Short octave.
- 23 Wolf, op. cit., pp. 293-4.
- 24 See chapter 2, p. 70.
- 25 Sebastian Virdung: 'Musica getutscht' (1511).
- 26 Wolf, op. cit., p. 13.
- 27 Most German lute tablatures arrange their symbols into lines according to voices, rather than the strings of the instrument. In this they differ from their French and Italian counterparts.
- 28 Leipzig Stadtbibl. ii. 6. 15. See Gustave Reese: 'Music in the Renaissance', p. 716.
- 29 Dart, op. cit., p. 74.
- 30 Juan Bermudo: 'Declaracion de Instrumentos Musicales' (1555)
- 31 Antonio de Cabeçon (published by his son, Hernando): 'Obras de musica para tecla, arpa y vihuela' (Madrid, 1578).
- 32 "Si en quarto modo comienza el contrabaxo en Elami grave el tenor en el mide b fa mi, el contra alto en elami agudo, y el tiple en g solreut agudo: en el contrabaxo ponga el numero de diez, en el tenor quatorze, en el contra alto diez y siete, en el tiple diez y nueve, y assi de todos los otros puntos." (f. 112b). ("If in the fourth mode the contrabass begins in elami grave, the tenor in the middle b fa mi, the contra alto in elami acute, and the triple in 9 solreut acute, in the contrabass put the number 10, in the tenor 14, in the contra alto 17, in the triple 19, and similarly for all the other notes.") [32]
- 33 "La mas bassa regla es para el contrabaxo, la otra para el tenor, la tercera para el contra alto, y la quarta para el tiple."

- 34 "0 la minima con puntilla y las dos corcheas. En tal caso por ser las cifras dudosas: es menester poner senales. Pues poniendo sobre la cifra que es minima y la que tiene valor de minima con puntillo, una minima con puntillo: quedan las otras dos cifras claras."
- 35 "Otra manera de cifras usan algunos, y son que hazen tantas rayas quantas cuerdas tiene su harpa, y por alli senalan los golpes."
- 36 A very similar notation is found in 'Tres libros de musica en cifra para vihuela' (Seville, 1546) of Alonso Mudarra: transcription and commentary by Emilio Pujol (Barcelona, 1949). A system of 14 lines is used, both lines and spaces corresponding to the strings of the harp, or the notes of the keyboard. The only symbol used is I.
- 37 Wolf, op. cit., p. 301: „Dass die Zahlen in der Tat der Aufzeichnung von Harfenmusik gedient haben, beweist die Spanische Literatur. Schon aus den Titeln der Drucke wird offenbar, dass Klavier, Laute und Harfe sich in die gleiche Literatur teilten, und damit die gleiche Notation sich in Anspruch nahmen.“
- 38 Vinegas de Henestrosa: 'Libro de cifra nueva para tecla harpa y vihuela' (Alcala, 1557).
- 39 Francisco Correa de Arrauxo: 'Libro de tientos y discursas de musica practica' (Alcala, 1626).
- 40 Ruiz de Ribayaz: 'Luz y Norte Musical' (Madrid, 1677).
- 41 Cardiff MS Havod 24, p. 809; B.M. Add. MS 14939, f. 38a: *Cwlwm Difr Carsin*, etc. [33]
- 42 See chapter 4.
- 43 The single extant copy is in the Biblioteca Nazionale, Naples.
- 44 The attribution of this system to Arnolt Schlick ('Tabulaturen etlicher Lobgesang und Lidlein', 1512) in Wolf, op. cit., is false, as a comparison of the facsimile on p. 21 of the 'Handbuch' with the table on p. 20 will show. For a clear exposition of the development of rhythm signs in German tablatures, see Apel: 'The Notation of Polyphonic Music'.
- 45 Facsimile and German translation in Wolf, op. cit., pp. 53-4.