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THE WELSH CRWTH, ITS HISTORY,  
AND ITS GENEALOGY

Volume III: Errata and Addenda

by

J. Marshall Bevil

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## INTRODUCTION TO THE 1974 ISSUE

Since the completion of the final typescript of The Welsh Crwth, Its History, and Its Genealogy in July of 1973, there have been found by the author, as well as by numerous other readers on both sides of the Atlantic, a number of errors and several ambiguities. Also, repeated readings by the author have pointed up the apparent need of revising some conclusions which were either stated or implied in the original document. For these reasons, it seems in order at this time to issue this first installment of errata and addenda.

It often takes years, and hundreds of man-hours, of combing to detect even the most elementary mechanical errors in a printed work. From this, it follows that even more effort must be expended in the never-ending process of reconsidering ideas and revising stated conclusions. Therefore, some provision must be made for supplementing the present volume of alterations. Rather than trouble recipients with page after page and volume after volume of often trivial changes, the author has chosen to send this first installment of supplementary material in an openable binding within which additional pages can be inserted from time to time as the need arises. Supplements will probably not be issued regularly, but according to however long it may take to accumulate enough material to make a subsequent installment worth the necessary effort and expense of production.

In connection with the preparation of revisions and corrections, the author wishes to stress (for the N-th time, to some readers!) that he welcomes any questions, suggestions, or pointing out of outright errors of fact. Such help will greatly expedite the revisional process which will

culminate in the commercial, large-scale publication of the monograph. This, in turn, will terminate the issuance of alteration after alteration of the original document. Revised editions of the first commercially published volume will undoubtedly appear, but there remain many Gordian knots to be untied before even the first printed edition comes off the press.

It would be futile to attempt personal acknowledgement of every suggestion made or of every error pointed out. A few parties, however, have done so much toward either preventing or pointing out mistakes that their names should be mentioned.

This volume of corrections and additions would be infinitely longer than it is had it not been for the patience, interest, and efforts of two members of the Music Faculty of North Texas State University. Professor Cecil Adkins, the author's major professor and thesis director, put in many an hour of reading over reams of notes and typescript. His many suggestions, particularly within the area of organological technicalities, saved the author from making many embarrassing errors. Special thanks are also due to Professor Dika Newlin (now at Montclair State College, Montclair, New Jersey, U.S.A.), who, as a member of the author's committee, took time from a busy schedule to proofread the final typescript for errors. This assistance, which was not a part of Professor Newlin's obligations as a committee member, prevented the publication of virtually all of the numerous typographical errors which appear in a typescript prepared by someone whose lack of typing skill is exceeded only by his lack of funds for paying a professional typist. Professor Newlin also noted the errors in the musical examples; these errors have been mended in this volume.

Special gratitude is also expressed to Mr. D. Roy Saer, of the Welsh Folk Museum. Mr. Saer has at present looked over the monograph briefly and pointed out a few errors regarding matters involving the Welsh language. He expresses his intent to examine the document in detail and communicate any

additional errors which he may find. Resultant corrections will appear in the subsequent edition(s) of errata and addenda.


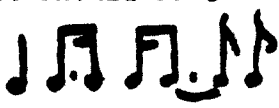
Finally, two other persons deserve special recognition, not only for constructive criticism regarding the finished thesis but also for their deep and sustained interest in every stage of the project from the time they first learned of it. Yvonne Davies (née Cousins), well-known for her activities with Welsh folk dance groups, provided much valuable information prior to the preparation of the thesis; and she has been no less helpful since that time, taking the time to read the thesis cover-to-cover and to advance several helpful suggestions and clear up a misunderstanding which resulted in the publication of a factual error regarding the performance of one of the dances.

The second of these last two parties to be cited by name is Mr. Malcolm Siôr Davies, author of a monograph on the Welsh pibgorn. Mr. Davies also read the present writer's thesis thoroughly, pointed out one mechanical error, and raised several questions of considerable merit. At present, the author and Mr. Davies are tentatively planning to record music for crwth and pibgorn, with harp music provided by a harpist from North Texas State who has expressed interest in the project.

Thus it is that The Welsh Crwth, Its History, and Its Genealogy is, far from being the end of much work, just the beginning. This volume of alterations is the first step toward the creation of a truly definitive work on the subject.


In closing this introduction, the author wishes to make it clear that any statements made or any ideas set forth or implied within either this volume or any subsequent ones are his and his alone. Unlike the original monograph, this running volume of addenda and errata is not being prepared to satisfy any requirement of North Texas State University, any past or present member of its faculty, or any member of its administrative staff.

ERRATA

<u>Page</u>	<u>Par.*</u>	<u>L(l).</u>	<u>fn.</u>	<u>(other)</u>	<u>Correction</u>
1			1		plural: <u>crythau</u> ("krəth-ahē," or "krəth-ih"). Acknowledgements to D. Roy Saer (Welsh Folk Museum).
19		2			orifices
33				TABLE 7	lowest g a "flat note"; also, "recess notes"; e and b throughout. Cf. also pp. 13-24, this volume.
36		5-6			"Now bring up the sixth string to a pitch <u>eight</u> notes below the fifth."
★49 63		3			Foitiers is actually in Poitou, but both Poitou and Brittany are in the same general area and hence had a large Breton population. Thus a more accurate translation of the last line of the poem might be, "And let the Breton chrotta sirg."
			1		
73	III	2			typographical error; should read <u>-1408</u> . Actually isolated disturbances continued to transpire for some time after this, but 1408 seems to be the date at which the uprising's last chances of success were lost.
76		1		mea. 2	Last note should be 
		3		mea. 2	rhythm: 
		4		mea. 2	same as in line 3
78	II	4			Delete <u>accounts of</u> .
79		2		mea. 2	Indication of first ending should occur on last note of measure.
81	I	2			<u>filled</u> more correct than <u>fulfilled</u>
(EX)		4		mea. 3	g#

\*indicated only when necessary for clarity

★ The second chord in the progression should be fingered 1-3, and it is spelled g-c<sub>2</sub>-e<sub>1</sub> (open c<sub>2</sub> not bowed).

- 84 Yvonne Davies informs the author that the costume is incorrectly worn, as all long hair was gathered under the lace and thus kept from showing.
- 85 fn3 The tempo is increased on the last repetition only; apologies for the misunderstanding.
- 86 1.5 mea. 2 rhythm: 
- 104 6 earlier
- 145 2, ff. Gesellschaft der Musikfreunde  
★
- 158 average resonator depth, Galpin crwth =38.0 mm.
- 162 (overlay) inner arrowheads missing, r.-lat. sub-meas. indications (260, 316 mm.)
- 174 (overlay) lower arrowhead missing, fingerboard length (231.2 mm.)
- 180 Some copies printed illegibly. The NOTE (top edge) reads: "No common horizontal centerline."
- 189 (right half) Arrowheads missing, fingerboard sub-meas. (55, 83.5, 98 mm.)
- 190 r. arch, bridge 10 mm.; r. leg: 13.8x12  
208 Footnote index no. (14) missing from caption.
- 227 Details of neck all in left, not right, half of frame.
- 228 Misplaced decimals, left side: 48.2, 122, 102 mm.
- 236 ". . . has been successful."
- 
- ★ 156 Arrow from Westminster crowd to nykelharpa should point toward the latter.



## NEW EVIDENCE CONCERNING ICONS

**The Cotehele Crwth**

Since the publication of The Welsh Crwth . . . it has developed that there is an icon of considerable importance which was not examined in 1972 during the author's research expedition. This icon is a carving on a bedhead at Cotehele House, St. Dominick, Saltash, Cornwall. Sincere thanks are expressed to Miss Barbara Trelawny for communicating the important available information about this icon.<sup>1</sup>

The carving of the crwth (pre-modern form) is part of a small panel depicting Welsh minstrels. The date of the carving is unknown, but it definitely antedates 1532, when Katherine ap Phys married Sir Piers Edgcumbe and brought the bedhead with her to Cotehele. One panel on the bedhead is decorated with the Tudor Arms and the antelope and panther, supporters of King Henry VI (1421-1471). This panel, however, is set slightly crookedly and does not seem to fit the piece as a whole; hence it may have been a later addition.<sup>2</sup>

Miss Trelawny's description (in part) and sketch of the instrument follow.<sup>3</sup>

The instrument is held by the player in his left hand, with the lower and narrower portion resting against the left side of his chest. A strap from the instrument goes over his right shoulder and round his neck, but one cannot tell where the other end is fixed to the instrument. He holds the stringed portion of the instrument - see sketch. There is no sign of a bow now, so this was presumably broken off and worn away.

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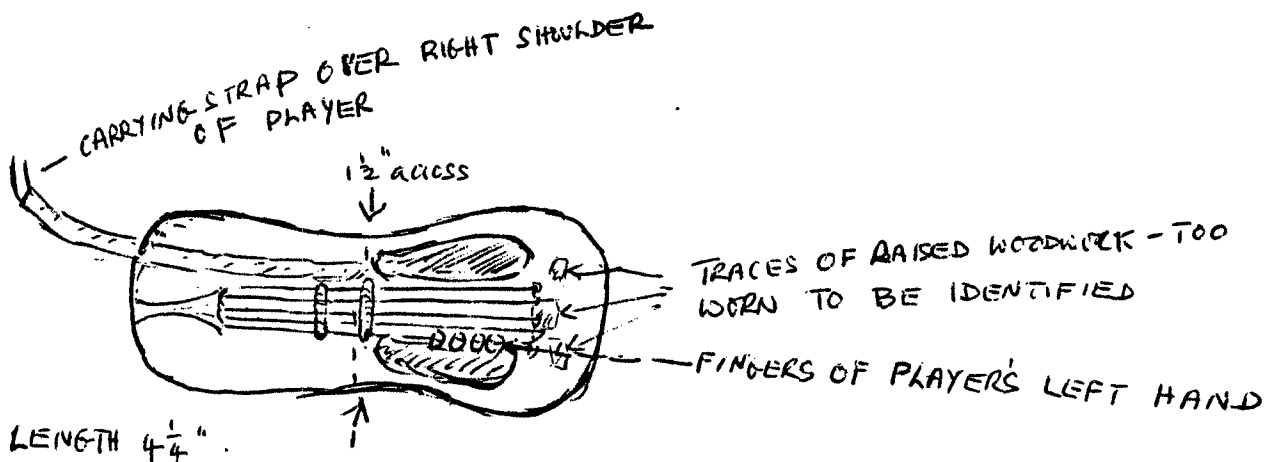
<sup>1</sup> Letter to the author, 23 October, 1973, at which time Miss Trelawny was head of the Office of the Administrator, Cotehele House, maintained by the National Trust.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid. Sketch in the hand of Miss Trelawny.

The player's right arm and hand are in a position where they could have been holding a bow. . . .

Fig. 1: Sketch of Cotehele crwth, in the hand of Barbara Trelawny.



Several conclusions, it seems, could be safely drawn from this evidence. First, the use of a neck strap by some players now appears to be a point beyond dispute, although it certainly does not prove use of the device by all players.

Secondly, the appearance of five, not six, strings, is curious. As early as the eleventh century, a distinction was being drawn between three- and six-stringed crwths, and the only other common number of strings seems to have been four. This appearance of a five-stringed crowd (or crwth), not singular but very rare among British icons, may have been due to artistic expediency rather than to pursuit of technical accuracy.

Thirdly, the upper bar, which crosses the strings near the waist, is probably the remnant of a bow.<sup>4</sup> Only examination for signs of breakage could yield a solid conclusion, and several centuries' wear could have removed all signs of breakage.

Fourthly, the Cotehele icon may depict an instrument similar to that shown in Bibliothèque nationale MS Lat. 1118, f. 104<sup>r</sup> (thesis, p. 126). This may render Fétis's application of crwth trithant to the Paris icon more credible than it seemed before, but it does not lend any credibility to his postulation of an eastern origin of all western chordophones. Neither does this discovery indicate any direct descent of the modern crwth from the waisted lyre, because there is ample evidence of the vitality of straight-sided bowed lyres from at least ca. 1100. In addition, there is a discernible line of development of the modern crwth, back through the Westminster (ca. 1400), Worcester (1397), and Brunonis (ca. 1100) types (thesis, pp. 121, 71-72, and 67).

One is confronted, then, with the questions of 1) the possible coexistence of two similar but different European split-yoke bowed lyres from ca. 1100-ca. 1400/1500: i.e., the waisted form and the straight-sided one; and 2) the disappearance

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<sup>4</sup> Ibid.

<sup>5</sup> The use of the almost horizontal holding position by the Cotehele minstrel calls to mind Bingley's report of a modern crwth held with a strap. This suggests the survival of an old practice, and it further raises a question about the age of the tuning which Bingley reports (cf. p. 12, below).

of the waisted instrument. Although there exists the temptation to postulate the evolution of the straight-sided, split-yoke bowed lyre from the waisted form, such a proposal would be dangerous, as it seems that the two body types co-existed long before the bow was applied to either of them (thesis, Fig. 7, and text, .p. 112).

The fifth and final conclusion is that regarding a likely date of the icon in question. It has already been established that the bedhead dates definitely from before 1532 and probably from before 1421. The age of the crwth represented could set the date back as far as ca. 1000, but this would probably be stretching evidence a bit too far; the bedhead as a whole would undoubtedly show more advanced decay, not to mention stylistic signs of greater age, than it does, were it 974 years old.

Historical matters help some in determining a likely date of origin. The strongly nationalistic demeanor of the bedhead's artistry, particularly the minstrels' panel, suggests that the work was a manifestation of a mood of strong, even fervent, Welsh nationalism. Particularly noteworthy is the fact that minstrels were so very prominent in both English and Welsh uprisings from ca. 1380-1410, most especially in Glyndwr's rebellion (thesis, pp. 73-74). Therefore, a date of origin which would fit all other facts and probabilities would be ca. 1375-1425, or to risk being too specific in speculation, ca. 1400, the year in which Glyndwr's rebellion began. That the instrument shown is of apparently older origin carries little weight: very old and very primitive forms appear to have survived in Wales long after the appearance and establishment of the modern crwth, as the drawing in MS Havod suggests (thesis, Plate 34, p. 136).

Thus it now seems that the modern crwth not only replaced earlier straight-sided forms but also a waisted, six- (or perhaps five-) stringed form with which it either may or may not have been in competition for some

of (or all of) the Welsh minstrels' favor ca. 1500- 1510. It also seems likely that the neck strap was in use prior to the advent of the modern crwth and that the influence of one or more older species entered into the adoption of the strap by some performers around 1500.

#### A New Position Concerning the Shrewsbury Icon

There now appears to be some need of casting light on a controversy which surrounds the icon in St. Mary's, Shrewsbury. The date of this sculpture is uncertain. Therefore it would seem reasonable to tentatively withdraw it from the list of touchstones employed in the reconstruction of the modern crwth's metamorphosis.

While in Shrewsbury (1972), the author sought to verify reports that the present icon is a late nineteenth-century replacement of the fifteenth-century original which was destroyed when a storm toppled part of the church's spire onto the roof.<sup>6</sup> The Verger of St. Mary's reported this information to be incorrect and maintained that only the front part of the roof was damaged beyond reconstruction of any original members.

A fresh discovery suggests that the above-cited reports may be correct. Cranage<sup>7</sup> writes that virtually the entire roof was smashed and that much fine detail had to be completely re-fashioned. Unfortunately he does not give a complete account of the damage. The spottiness of this aspect of Cranage's

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<sup>6</sup>Mary Remnant, "Rebec, Fiddle, and Croud in England," Proceedings of the Royal Musical Association, XCV (1968-'9).

<sup>7</sup>An Architectural Account of the Churches of Shropshire, (Wellington, 1912).

otherwise careful investigation points toward a possible dearth of primary information which may exist only in the records of the firm or firms that oversaw the repairs. Any such evidence, if it survives and can be found, will be aired and evaluated in a future issue of this volume.

### NEW EVIDENCE CONCERNING PERFORMANCE PRACTICE<sup>8</sup>

#### Tuning

In the original monograph, the author leaned toward the prevailing school of thought, which holds that the "proper" crwth tuning was that employing seconds ( $g-g_1-c_2-c_1-d_1-d_2$ ). In the thesis, this was referred to as the "traditional," "older," and "classical" tuning. Subsequent research and consideration, however, has lead the author to believe that such ideas may be incorrect. Although it is not absolutely certain, it seems that many Medieval three-stringed chordophones were tuned in octaves with a dominant provided by the open inner string (e.g.,  $c_1-g_1-c_2$ ). The crwth tuning in fifths (for example,  $d-d_1/g-g_1-d_1-d_2$ , based on Bingley's report of  $a-a_1/e_1-e_2-b_1-b_2$ ),  
 $\left[ \bar{?} \right] \quad \left[ \bar{?} \right]$   
 in addition to facilitating playing, more nearly follows common Medieval practice than does the tuning in seconds. This strongly suggests that the tuning in fifths may have been not only more common but also older than the tuning in seconds. The latter, moreover, was discussed in academic, theoretical writing (Cf. thesis, pp. 23, 36-37) and hence may have been an extremely rare scordatura.

<sup>8</sup>The new findings presented in this section were first publicized in the author's "Some Observations Regarding Crowth Performance," a paper read at the Autumn, 1976 meeting of the Southwest Regional Chapter of the American Musicological Society, Southern Methodist University, Dallas, Texas, U.S.A., 16 October, 1976.

While it may be debatable which tuning is older, it is likely that the tuning in fifths was more popular than surviving primary information on the crwth would indicate. Emmerson reports that a favorite tuning of many Scottish fiddlers was  $a-e_1-a_1-e_2$ .<sup>9</sup> Intervallically, this tuning is identical to the crwth tuning which Bingley reports, except that the two inner central strings are reversed in the case of the crwth:

$(e_1-e_2-b_1-b_2)$	$(a-e_1-a_1-e_2)$ .
<u>Bingley</u>	<u>Emmerson</u>

Each tuning is well suited to its respective instrument insofar as left-hand requirements are concerned. Both enable the player to execute melodies with chordal underlay by bowing two or more strings simultaneously and multiple stopping. It might also be noted that the reversal of the inner strings in the case of the crwth corresponds to the reversal of holding position.

More on the "Five Established and Warranted Keys"

In the 1973 document, the author quoted and analyzed a translated excerpt from Lewis Morris's glosses in British Museum MS Additional 14905, pp. 5-8.<sup>10</sup> The translation of the pertinent portions of the glosses appears on pages 387-389 of the 1795

<sup>9</sup>George Emmerson, Rantin' Pipe and Tremblin' String (London, 1973)

<sup>10</sup>Cf. thesis, pp. 28-30, 33. MS Add. 14905 is also known as the Robert ap Huw MS.

edition of the Cambrian Register. The most important conclusion drawn by the present writer, that the instructions for crwth playing very likely antedate the emergence of the modern instrument (ca. 1500-1510) remains unchanged. The author also stands by his original conclusion concerning the likelihood of the pentatonic nature of the scalar system which is described. A significant reexamination of a corollary issue should be submitted in writing at this time, however.

From the statement, "There are five established and warranted keys . . . ," the present writer, after considering alternatives within the realm of seven-note scales and modes, concluded that this excerpt from the rules<sup>11</sup> refers to a gamut of five ahenitonic pentatonic modes (Table I) within which melodies can move freely without being confined to a single octave (i.e., five-note) grouping or even necessarily governed by a strong degree of tonic gravitation (Example 1, p. 16). Order of the modes in the gamut, from highest to lowest, was based on the statement about the flat notes. The sharp, or highest, key evidently has no flat notes, or pitches below the neutral midpoint of the gamut, which is arbitrarily designated e in Table I. All other keys have one or more flat notes, and the flat key is apparently named for its quality of being made up entirely of flat notes, excepting the neutral e. Its  $\bar{g}$  above the e properly belongs to the next octave grouping and thus is not considered a sharp note above the the e. The present writer

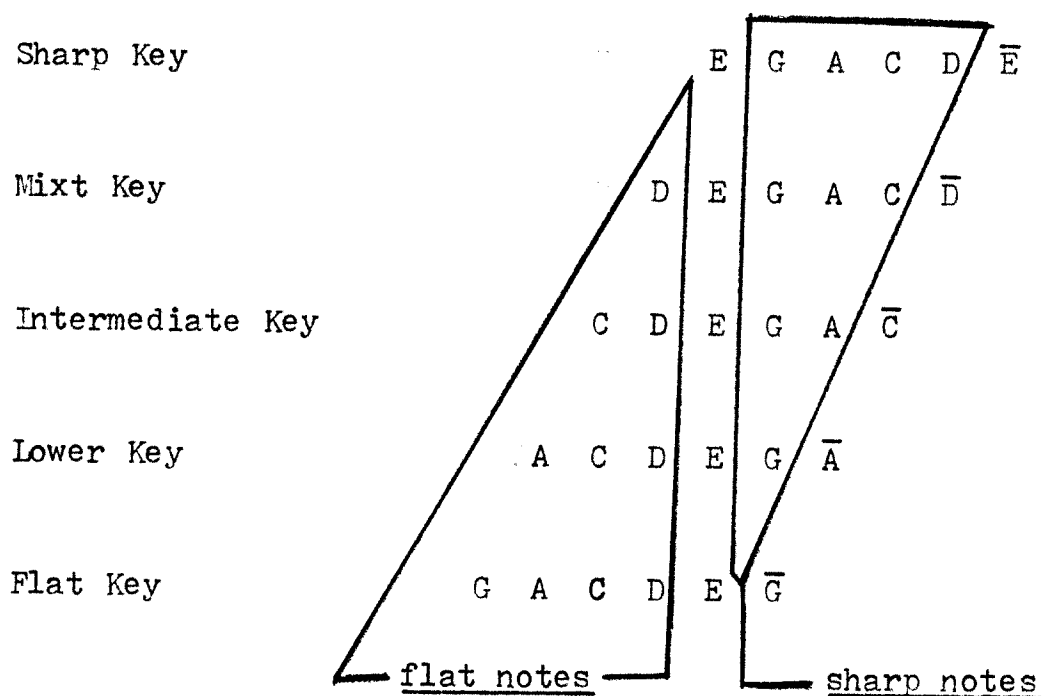
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<sup>11</sup> Morris (MS p. 8) passes along the statement that these rules date from a musicians' congress under Gruffydd ap Cynan (1055-1137).



assigns the remaining key names to the remaining modes, or gamut segments,<sup>12</sup> largely on the basis of the semantics of the description. Admittedly, this procedure may be a trifle hazardous, and these particular conclusions are logical conjectures.

TABLE I: Basic pentatonic gamut (one level), after the description in British Museum MS Add. 14905.<sup>13</sup>



<sup>12</sup> Concerning the author's preference of gamut segment over mode, see the discussion of the closing cadence of Example 1, in footnote 14, below. The term segment, as used in this capacity, is borrowed from M. Karples, editor of the Fourth Edition, Cecil Sharp, English Folk Songs: Some Conclusions (East Ardsley, Wakefield, Yorkshire, 1972), p. 66.

<sup>13</sup> Although the reasoning behind the procedure is somewhat different from that of previous studies, the above ordering of gamut segments is essentially like that which has been commonly accepted since the early twentieth century (Sharp, op. cit., p. 66).

The total number of levels (i.e., octave series) in the

(~>)



Example 1: Ending of folk hymn-tune (U.S.A.), "I Wonder as I Wander" <sup>14</sup>

Turning now to new ideas and revisions of old ones, the author must confess to having failed to give sufficient thought to the conclusion which can surely be drawn from the two statements above, "There are eight key notes . . .," and "There are five established and warranted keys, and out of those may be formed other keys at pleasure." These statements, in the opinion of the present writer, support Sharp,<sup>15</sup> Yasser,<sup>16</sup> Bronson,<sup>17</sup> and others who hold that both the ecclesiastical modes and the modern major and minor scales developed from the initially

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complete gamut probably varied from time to time and was determined by the number of strings on the harp during any given period. Hence the total number of levels once may have been as high as five.

<sup>14</sup> Whether this tune was found or, as some maintain, written by John Jacob Niles, its ending illustrates the reduced intensity of tonic gravitation found in Celtic music on both sides of the Atlantic. Concerning this cadence at the end, the present writer is one of whom Karples speaks when she reports that this frequent lack of tonic definition causes some investigators to regard each of the five modes as being but a segment of the entire gamut (Sharp, op. cit., p. 66).

<sup>15</sup> Sharp, op. cit.

<sup>16</sup> Joseph Yasser, A Theory of Evolving Tonality (New York, 1932).

<sup>17</sup> Bertrand H. Bronson, The Ballad as Song (Los Angeles, 1969).

improvisatory practice of inserting pitches between the more regularly employed tones of an already sophisticated and well-established indigenous modal system.

The missing piece of the puzzle is a matter which was misunderstood by the author in 1973: the meaning of the term recess note. The attempt to account for the meaning was not entirely satisfying at the time, but the issue seemed to be of secondary importance. It now seems any way but that.

Stated simply, the recess notes were exactly what their name implies: notes which were inserted, originally as auxiliary passing and leading tones, between the main notes of the pentatonic gamut, in the manner shown in Table II.

TABLE II: Basic pentatonic gamut (one level), with recess notes (lower case) inserted.

KEY NAMES	PITCH CONFIGURATIONS	HEPTATONIC MODAL EQUIVALENTS
Sharp Key	E f G A b C D	Phrygian
Mixt Key	D E f G A b C	Dorian
Intermediate Key	C D E f G A b	Ionian <sup>18</sup>
	[b C D E f G A	Locrian <sup>19</sup> ]
Lower Key	A b C D E f G	Aeolian <sup>18</sup>
Flat Key	G A b C D E f	Mixolydian

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<sup>18</sup>The mainstream of theoretical writers did not recognize the Ionian and Aeolian modes until the sixteenth century, but this does not preclude their frequent use before this time, especially in areas outside the Roman Church's sphere of strong influence.

<sup>19</sup>The Locrian mode is not common in British folk music. Further, including the Locrian mode among the "basic five" would force the exclusion of one of the others, all of which are common. Finally, one could hardly call the initial b a recess note, as it is not situated between two others.

It perhaps seems a bit strange to call b and f "recess notes," as we commonly recognize them as being parts of the familiar heptatonic scales and modes. It is important to remember, though, that at one time the pentatonic gamut segments were not thought of as having notes missing from them, even as we usually do not think of the major and minor scales as having notes missing from them. Therefore the rationale behind calling b and f "recess notes" was essentially the same, and as sound, as the reasoning which underlies our calling f-sharp an "accidental" whenever it occurs (albeit quite by design!) within a piece of music written in C-Major.

As the above chart shows, insertion of the recess notes into the pentatonic segments yields the modern major scale and four of the familiar heptatonic modes.<sup>20</sup> With the arbitrarily assigned pitches arranged as they are in Table II, we see, thinking pentatonically and not heptatonically,<sup>21</sup> that, within

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<sup>20</sup> Bronson (op. cit.), like numerous scholars before him, has recognized this relationship, but he has explored the important aspects of the relationship more fully than most of his predecessors have.

<sup>21</sup> Bronson tends to view the pentatonic and hexatonic patterns as being heptatonic orderings with one or two degrees missing (op. cit., pp. 82-85). For instance, he terms the segment c d e g a "Π-4, 7," or the pentatonic mode formed by removing the fourth and seventh degrees from the Ionian mode, or major scale. The present writer favors speaking of the pentatonic gamut as existing in its own right and being made of five interlocking, interdependent segments, each of which is independent of any other scalar pattern which is necessarily marked by strong tonic gravity and non-tonic centrifugal force. Further, the author does not regard the one-time absence of hexatonic and heptatonic phenomena as symptomatic of any sort of imperfection in the modal system of the time. When the need for additional degrees was felt, those degrees were added, and until that need arose, what existed was both sufficient and proper.

a single level of the gamut, one finds "five . . . keys [i.e., the traditional five segments of the pentatonic gamut], and [that] out of those may be formed other keys at pleasure [or as needed, by inserting recess notes to form hexatonic and heptatonic modes]." Moreover, within each of these synthesized scales, one can count eight notes (including the octave of each "keynote"). Further, any of these pitches can be borrowed from one gamut and allowed to function as the keynote, or lowest pitch, of a segment which, in turn, becomes the basis of another complete gamut into which a melody from the original gamut may modulate. This process, which is difficult to explain but fairly easy to illustrate, is shown in Tables III and IV, below.

TABLE III: Derivation of parallel gamuts from gamut g-a-c-d-e- . . . . (letter designations arbitrary); select examples.

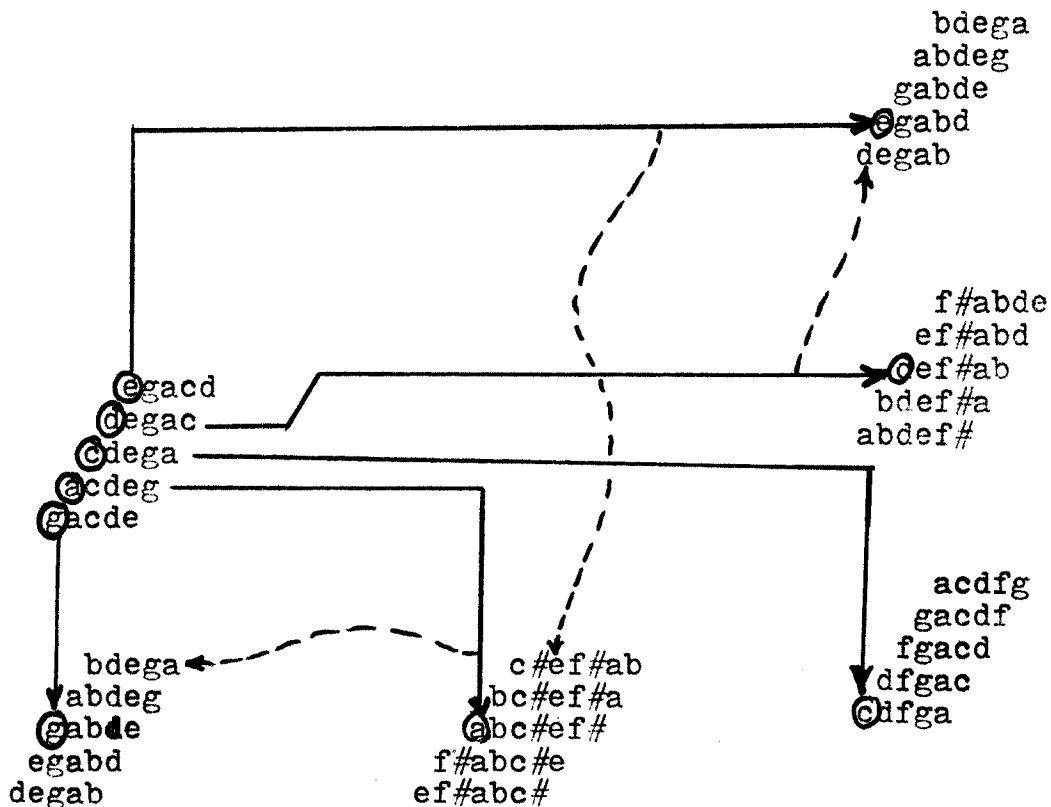


Table IV shows the way in which a melody may move not only within a single gamut but also in a parallel gamut. The melody analyzed is that of "Black is the Color of My True Love's Hair," a Celtic-American folk tune of probable Irish origin.

To make a few explanatory comments about the analytical procedure, we first see that the melody is analyzed at two different levels. Above the heavy horizontal line (below the staff) one notes the indications of which degrees of which purely pentatonic segment (i.e., one without recess notes) are represented by the motif partitioned by the vertical lines enclosing the degree numbers. In one case (measures 5b - 6), the melody could be said to run within either of two segments of a single gamut. The final cadence could possibly be said to be in any of three segments, although one feels it to be primarily in only one.

The second level shows analysis which considers the recess notes, in the manner of the theory outlined in the Morris glosses. This level is the one below the heavy line but still within the box formed below the staff. This approach reveals thinking in terms of recess notes to have been a likely step along the pathway between the traditional pentatonic system and the heptatonic modes and scales.

TABLE IV: Pentatonic analysis of "Black is the Color of My True Love's Hair" (p. 21)



Two well-known British melodies, "The Captain's Apprentice" and "Dives and Lazarus" (Tables V and VI, respectively), show some features not found in the above example. "The Captain's Apprentice," like the previous example, has to be analyzed in terms of two gamuts. The shifting from one gamut to another in "The Captain's Apprentice," unlike that in "Black is the Color," coincides with phrase changes. Thus the relatively free rhythm of this example is balanced by a cleanly cut juxtaposition of large blocks which interlock with each other on single common pitches. Further, analysis reveals less ambiguity regarding gamut segments than what is observed in "Black is the Color." The almost exclusively pentatonic character of both of the last two examples, plus the tonic ambiguity at the close of "Black is the Color" and the free rhythm of "The Captain's Apprentice," suggest that both of these melodies, or at least these versions of them, have come down to us in states resembling the ones which they were in at the times of their creation.

A very different situation exists in the case of "Dives and Lazarus." Many would argue that this melody is, in fact, not pentatonic at all, as it incorporates all seven pitches of the Aeolian mode. Pentatonic influence is very evident, however, especially at the cadence points. Because of this tune's being Aeolian with pentatonic contours, only one gamut is necessary for its analysis. One could say that only the first gamut segment, with both recess notes, is used. This, however, contradicts the strong tonic feeling present in this example. Changing from the second to the first and back to the second segment in order to pick up the *g* looks and feels awkward. This brings us back, full



circle, to declaring the melody to be Aeolian with pentatonic contour and cadences. Like the two previous examples, "Dives and Lazarus" represents a compromise between pentatonicism and the heptatonic modes, but it is so much more closely related to the latter that, in the opinion of this writer, it is probably more recent in origin than the other examples given.

TABLE V: Analysis of "The Captain's Apprentice"

Musical notation for the first part of "The Captain's Apprentice". The melody is written on a treble clef staff. Above the staff, the word "FREELY" is written. Below the staff, the notes are numbered with fingers: 4, 5, 2, 5, 4, 5, 3, 2, 1, 2, 2. Below these numbers, the interval analysis is shown: I-1, I-1, I-2, I-2. The notes are G, A, B, C, D, E, F, G, A, B, C, D. An arrow points to the right from the end of the staff, indicating the continuation of the scale.

### Pentatonic Gamuts, "The Captain's Apprentice"

I.  $G^x A^y B^z C^w D^v E^u F^t G^s A^r B^q C^p D^o E^n F^m G^l$

II.  $D^x E^{(x)} F^y G^z A^w B^v C^u D^t E^s F^r G^q A^p B^o C^n D^m$

The diagram shows two pentatonic gamuts, I and II, with notes G, A, B, C, D, E, F, G and D, E, F, G, A, B, C, D respectively. Brackets and numbers 1 through 5 indicate the fingering for each note in the scale.

Musical notation for the second part of "The Captain's Apprentice". The melody is written on a treble clef staff. Below the staff, the notes are numbered with fingers: 1, 2, 4, 2, 3, 4, 5, 4, 3, 1, 3, 4, 2, 5, 4, 5, 1, 2, 3, 2, 1. Below these numbers, the interval analysis is shown: II-1, II-3, I-2. The notes are G, A, B, C, D, E, F, G, A, B, C, D, E, F, G, A, B, C, D, E, F, G. An arrow points to the left from the beginning of the staff, indicating the continuation of the scale.

TABLE VI: Analysis of "Dives and Lazarus"

1-2: 2X 1 | 1 2X 3 4 3 4 5 4 3 2 1 | 2X 7 | 1 2X 3 4 3 4 5 4 3 2 2 5 4 |

Pentatonic Gamut, "Dives & Lazarus"

(I) G A  $\flat$ B C D E  $\flat$ F G A  $\flat$ B C D E  $\flat$ F G

(I-1) 1 5 4 3 4 5 3 4 5 4 3 2 1 | 3X 7 | 1 2X 3 4 3 4 5 4 3 2 2 5 4 | 2 |

(I-2) 5 4 3 2 3 4 2 3 4 3 2 3 2 1 | 2X 1 | 1X 2 3 2 3 4 3 2 1 4 4 | 1 |

Looking at the historical background of the issue proves to be of more than a little interest. Firstly, it would be in order to strongly suspect that this curious manner of describing certain of the heptatonic modes as expanded pentatonic modes exemplifies a practice not without precedent and parallel in the history of western musical theory; the explanation of new developments or incursions, which did not always fit comfortably within the old theoretical framework, in terms of established tradition insofar as possible. More familiar examples are the "mixed modes" (Marchetto da Padua) and the aforementioned "accidentals."

The case of pentatonicism versus heptatonicism is one that involves a rigid oral tradition whose mastery at one time required many years of training and practice. The collision between the pre-Christian Celtic and the Christian religions is an event celebrated in song, story, and even the visual arts; and the eventual melding of northern European pagan practices with the Judeo-Christianity of Mediterranean climes is far too complex to treat very entertainingly in the ways described above. Undoubtedly the theoretical and technical, as well as the literary <sup>22</sup> and the more subjective, aspects of the music of these two cultures blended into the mixture along with religious practices and everything else; and the hybrid system was long regarded and explained in the far north as a home-grown enlargement, and eventually as an improvement, of what had existed previously.

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<sup>22</sup> An interesting recent study of the evidence of acculturation in folksong texts, as well as in religious practices, of the Celtic regions is R. Stewart, Pagan Imagery in English Folksong (Atlantic Highlands, N.J., 1977).

The fact that the data was recorded, in an act which was undoubtedly frowned upon by native cultural purists, also causes one to raise an eyebrow. Seemingly tenable is the postulation that this recording stemmed from the exigencies of preserving as much as possible of the old tradition in the face of the onslaught of new incursions that were backed by an oftentimes obnoxiously aggressive organization and, by the twelfth century, a written tradition.

This brings us to the last major issue, for the present. Normally one views with extreme skepticism any claim that data recorded long after the fact is highly accurate with regard to what actually took place. In this case, however, one must first consider that Morris copied the glosses out of a document whose age could have been much greater than that of the Robert ap Huw MS, which only dates from the seventeenth century. In the second place, the development of a hybrid modal system such as that outlined above would surely have been taking place in the Celtic regions perhaps as long as three centuries before the time of Gruffydd ap Cynan.<sup>23</sup> The late eleventh (or early twelfth) century, then, would indeed be a logical time for established, and probably orally recognized, practices to have been formally codified. Gruffydd's activities, moreover, represent that phase of the early twelfth-century <sup>Celtic</sup>renaissance which entailed the "compilation of old stories, verse, and tradition."<sup>24</sup> These activities, which had arisen almost a century earlier in the

<sup>23</sup>The earliest significant treatment of the organization and character of the ecclesiastical modes is the Musica disciplina of Aurelianus Reomensis (fl. ca. 850).

<sup>24</sup>M. and L. de Paor, Early Christian Ireland (New York, 1958), page .

wake of the stunting of Viking power, led to a greater than usual heightening of native cultural consciousness. Therefore, one should not rule out the strong possibility, nor even the probability, that much of the data communicated in the Morris glosses is not too far removed from what was actually set down under the aegis of Gruffydd ap Cynan. As in the case of plainchant after the beginning of its written tradition, those who passed on old rules long sought to preserve them inviolate.

J. Marshall Bevil  
Denton, Texas, U.S.A.  
August, 1978  
(pp. 13 - 27)

## COMPANION RECORDING

Sharing common ground with both errata and addenda is the 1975 companion recording which accompanied the 1975 issue of this supplement. The recording replaced the original one of 1973. The new recording was planned for release in 1974, but a multiplicity of adverse circumstances frustrated this aim.

The more nearly full mastery of what were probably basic playing techniques, as well as the author-performer's development of some virtuosic fiddler's techniques, was the primary rationale behind the making of the new recording. Of particular interest are the expressive lifts and drops of the bow on the strings and the rapid spiccato and jeté strokes (all facilitated by an improved bow), the left-hand pizzicato, and the "rocking octave" technique employed in stroking the bourdons in some tunes. Also new on this recording is the use of col legno (surviving among American fiddlers and known as one variety of "straw beating"<sup>25</sup>~~10~~). As on the first recording, multiple-instrument sounds have been created artificially.

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<sup>25</sup>~~10~~ Ira Ford, Traditional Music in America (Hatboro, Pa., 1965); reprint of 1940 edition and cited by Linda C. Burman-Hall, "Southern American Folk Fiddle Styles," Ethnomusicology XIX, no. 1 (January, 1975), p. 49.

The following is an ordered list of selections on the new recording.

GENRE	TAPE		CASSETTE SIDE*	
	5"	7"	60 min.	90 min.
Welsh Song and Dance Tunes:				
"Ffair Caerffili"	1	1	1	1
"Pigau'r Dur"				
"Abergenni"				
"Llanover Reel"				
"Nos Galan"/"Llwydcoed"				
"Ceilog y Rhedyn"				
"Diniweidrwydd" ("Y Bachgen Main")				
"Our Gallant Ship" ballad tune				
"Yr Hen Wyddeles"	2			
"Ffarwel, Ned Puw" clog dance music				
Americana:	⋮	⋮		⋮
Appalachian Mountains tune (I) ("Ol' Joe Clark," etc.)			2	
"Sourwood Mountain" (Appalachia, Southern Uplands) square dance tune (Gulf Coast)				
"Ballad of the Arkansas Traveler" (Ozark Highlands)				
Appalachian Mountains tune (II)				

Concerning the insertion of the North American tunes and titles, attention is directed to the thesis, Vol. I, p. 237.

J. Marshall Bevil  
Denton, Texas, U.S.A.  
Summer of 1975

Lewisville, Gainesville,  
and Houston, Texas  
1975 - 1977.

\* In all cases, disregard footage counter numbers in the index of the original document.

\*\* Single-sided recordings compatible with all transports and heads; dual-sided recordings for  $\frac{1}{4}$ -track stereo only. Open-reel tapes recorded at 19 cm./sec. (7.50 i.p.s.).

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# Thesis Abstract

REYLL, J. Marshall. The Welsh Crwth, Its History, and Its Genealogy (Houston, author's publication, 1977). Originally prepared and submitted as a thesis in partial fulfillment of the requirements for the degree Master of Music in Musicology at North Texas State University, Denton, Texas, U.S.A., August, 1977. 269 pp., 16 tables, 32 line drawings, 18 notated musical examples and companion recording of 16 examples, bibliography with 138 titles and 8 non-titular entries (letters and personal interviews). Running supplementary volume, subtitled Errata and Addenda (Vol. III), begun in 1974. Re-recording of companion tape issued as part of 1975 supplement, and companion film with soundtrack scheduled for release in 1978. Portions of original document and supplement revised for publication in scholarly journals.

In the early years of the nineteenth century, scholars undertook the exceedingly formidable task of systematically tracing the ancestry of the European bowed chordophone, with the violin being the central item of interest in most cases. At present, over a century and a half later, the myriad attendant questions have not all been answered to the complete satisfaction of every party concerned, and it could perhaps be justly said that the only furtherance thus far realized has been that of the confusion rather than the resolution of the issue.

One of the most vexing matters has been the place of the Welsh crwth in the history of European chordophones. Cultural isolation and insularity, linguistic esotericism, terminological looseness and ambiguity, and a lack of adequate understanding of the place occupied by the bowed yoke lyre within the Western string family augment the usual organological problems to make the situation especially fascinating but very nearly impossible. It is the purpose of the present study to advance some new ideas on the subject of the crwth and perhaps eliminate some of the confusion which has heretofore prevailed.

Since this document treats the total issue implied by the title, not just those matters which have proven the most troublesome (and since the work is aimed not only at the specialist but also at the historian, the ethnologist, the antiquarian, and the music student), there is within it some repetition of common organological knowledge. Between and within blocks of familiar information, however, there are set forth items of fact, theory, and hypothesis which have not been heretofore advanced, to the best of the present writer's knowledge.

Original contributions can be grouped into three large classes. The first of these consists of facts which have not been previously aired. The second group was formed by pulling the proverbial drawstring in order to bring together many small bits of previously known fact which, as individual particles floating in an epistemic vacuum, mean little and have often caused confusion but which, when grouped and situated in what now seems to be a more nearly proper perspective, lead to several important new conclusions and to the reexamination and modification of conclusions drawn in earlier studies. A third group of original efforts is represented by evidence obtained during personal examination of surviving instruments, icons, and documents; in personal interviews; and in a series of experiments undertaken to resolve controversies and eliminate lacunae associated with crwth performance. Particular consideration was given to tuning and to holding, bowing, and fingerboard techniques.

Sources used in this investigation fall into four major categories. The first includes printed matter, and a second category is that of musical examples taken from sound recordings. The third class takes in information obtained either during personal interviews or from personal observation. The final category consists of letters, an unpublished monograph, and other manuscript materials.

The first part of the monograph treats of the modern instrument (ca. 1500 - 1850 C.E.) almost exclusively. Covered are etymological problems, the structure of the instrument, and an investigation of the history of the crwth in performance. The second large section is an in-depth probing of matters surrounding the crwth's genealogy. An appended section consists of an illustrated, descriptive catalogue of extant specimens, important replicas, and a reconstruction. Following this is a brief treatment of matters pertaining to instruments of uncertain origin. The document is concluded by a discussion of the possibility of the crwth's one-time existence in North America.

JMB  
17. XI. 1975  
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