THE ROBERT AP HUW MANUSCRIPT

AN EXPLORATION OF ITS POSSIBLE SOLUTIONS

SYNOPSIS

PETER GREENHILL

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PREFACE

The tablature in the Robert ap Huw MS. has many unique features. There is nothing particularly unusual in this, and yet its musical meaning has remained, for the most part, elusive right through modern times:- no set of precise definitions for all its symbols and groupings of symbols has yet been proposed. The literature on the subject can give the impression that this is due to the nature of the tablature itself: its unique features and apparent ambiguities and shortcomings as a system of notation. But I suspect that if the kind of music that it describes was one that was familiar, these obstacles would have been overcome long ago.

I feel that the real problem has been that contributors have been faced with the task of trying to recover a musical idiom which is unknown; that not only is the tablature unique but the music also. Of course it is not possible to be certain about this because it is so difficult to get a clear image of the music when the tablature is not very well understood. But certainly the music so far has not been identified as belonging to any familiar genre.

This is not surprising, for the music text of the MS. presents an appearance which immediately confounds most expectations that we might bring from our understanding of other early music. Instead of monody or heterophony, the tablature almost throughout contains chords of up to about six notes, and these chords are organised on some system alien to the tonic-dominant principle. This harmony is not polyphonic either, for it is clear that it provides an accompaniment to a single melodic line. Even this melodic line seems to have little in common with what we might expect: it cannot easily be resolved into anything approaching a vocal air because the phrasing seems to have a peculiarly geometric, unlyrical quality. Although variations are common throughout most of the text, the pieces do not lend themselves to being characterised as structured on the air-with-variations principle. Perhaps the most unfamiliar feature is that most of the pieces are extraordinarily long.

In these rather peculiar circumstances I believe that it is especially important to guard against importing our expectations into this field, for fear that we will project them where they do not belong. So I have taken great care to develop a method for reconstructing the music which is as objective as possible, and which consequently probably has more in common with cryptography than music as an art, for the task of deciphering the tablature system is essentially an exercise in logical symbolism of course, not an opportunity for artistic creativity. So I have tried to use the appropriate methods, even employing tests of statistical significance where it is

important to quantify probabilities.

Also in these circumstances, I think it is clear that the recovery of the music (which as a goal has been the common thread running through most of the literature) is even more remote than many have thought. In the literature, over time, a sense of arrival has been superseded by a sense of imminence, and that superseded in some quarters by a sense of remoteness. I think that this progression may reflect the gradual emergence of the idea that solutions cannot be arrived at here by positive identification (as would be the case if the music was familiar) but only by the exclusion of any alternatives. That is to say, in this field it is seldom possible to say that something is right, but often it is possible to say that something is wrong. For we *do* have the opportunity to *test* propositions, against the text and all the other relevant material.

This is a shift in perspective which I feel is necessary to consolidate the existing pioneering work and to put the study on a firm footing, as if preparing to lay long siege. So in the work outlined here, I have tried to formulate all the alternatives; I have tested them as fully as possible, catalogued the surviving propositions and made some assessment of their relative merits where they are mutually exclusive.

This has been a huge task, and over the decades I have had to work through an enormous amount of technical detail: the text itself runs to over 10,000 columns. This creates logistical problems in communicating the work, and one solution has been to provide this synopsis or conspectus which outlines the work, including the most important conclusions. Please note that the synopsis is very condensed, that it is not a summary of the arguments involved, and that as its sections are necessarily interdependent they do not really form a 'chronological' sequence in the sense of linear logic.

METHODOLOGY

The extent to which the music text has been, to date, provisionally deciphered is clarified and quantified. It is noted that the proportions are small, that there have been only very small areas of consensus, and that there has often been a heavy reliance on assumption rather than argument.

It is also noted that the extent to which contributors have actually tested their proposals against the text is unclear, in the absence of any published large-scale analysis of the text. The continual disagreement or confusion in even identifying the basic symbol sets contained in the text (especially the letter plus octave-mark symbols) gives cause for concern here.

It is argued that in these circumstances it is not actually possible to positively identify the music intabulated as being related to any extant music. It is proposed that it is necessary to achieve a provisional decipherment which hopefully resembles the original music sufficiently closely so that if indeed any extant music is related, it would be possible to identify it as such, and subsequently to use it to refine the provisional decipherment. In this respect it is noted that the task of deciphering the text is to some extent without precedent, and that therefore it is necessary to partly evolve particular methods for the task.

It is noted that existing committed transcriptions are not the result of systems of decipherment which can be applied to the whole of the text, and that it is generally thought to be impossible to evolve such a system because the manuscript omits, perhaps deliberately, the necessary information. This view is challenged, and the hypothesis is adopted that the author of the text tried to record the music comprehensively for readers who were largely unfamiliar with it. Thus underlying principles of consistency, clarity, concision and thoroughness are ascribed to the text. In particular it is argued that there is a *prima facie* case for each symbol and group of symbols having only one musical meaning.

A large-scale analysis of the text is undertaken, so that the raw data is organised into meaningful information, mobilising the text as a test of propositions about the meanings of the symbols. If a proposition is not then practically possible to implement on the harp without contradicting the internal logic of the text it is to be rejected.

It is noted that whereas there has been something of a shortage of solutions suggested which can be referred to the whole of the text, there is, in fact, no shortage of potential solutions. Thus the decipherment described here entails isolating a range, usually, of alternative solutions to a particular problem, and then

attempting to assess the relative probabilities of these alternatives, so that often one of these can be selected as most probable.

A wide but hopefully exhaustive range of material lying outside the text that might have some relevance to it is reviewed and assessed as to its possible usefulness, in an attempt to define the field from which evidence and inference may be drawn. This includes the explanatory material in the contemporary Grammars and the 'Statute' literature, and descriptive references, mainly compiled from verse sources. Heavy reliance is to be placed on the characteristics of instruments. It is argued that performance of the musical idiom ceased shortly after 1584, and that material that originated subsequently is to be excluded.

PROVENANCE

It is established that the music text is not a first draft. Robert ap Huw's rôle is defined by reference to the 'fencing', which on analysis is revealed to be a second layer, added subsequent to the initial copying from an earlier draft, as was suggested by Dowd (1950). It is concluded that Robert ap Huw was acting first as a scribe and secondly as a naïve interpreter.

Some attempt is made to assign various parts of the manuscript to these two different layers. It is noted that this cannot be done with certainty and that therefore the text has to be treated with some caution: the whole of it cannot be accepted as an informed transcription of performance. To help clarify this, all the corrections in the text are examined in great detail.

The possible identity and circumstances of the original author(s) of the text are discussed. It is concluded that Wiliam Penllyn may indeed have been the originator. It is noted that its origins must have been sufficiently remote to Robert ap Huw to be inaccessible to him.

In the absence of any other indication of date, 1613 is adopted for the first layer of the manuscript.

The points of correspondence between the contents of the manuscript and the sixteenth-century eisteddfod tradition are itemised in order to demonstrate that the original author(s) of the text were not working independently of that tradition. Continuity with earlier tradition is established.

The allusions to Ireland in both of these sources are itemised, and a number of further links with contemporary Irish musical practice are identified. As a picture emerges of an early instrumentally-based music not confined to Wales, it is noted that it is not possible to define its limits in time or place by the presence of any adjacent instrumentally-based music, because one such cannot be positively identified.

It is also noted that its musical limits cannot be defined because the text is an unrepresentative sample of the musical idiom.

INSTRUMENTS

It is argued that the pieces in the manuscript were played not only on the harp (probably in a variety of forms), but that the *crwth* was commonly used as an alternative. It is advanced that the *timpan* provided a further alternative. It is noted that in the field of contemporary stringed instruments it is not possible to delimit the range of instruments used.

A discussion of the nature of the *crwth* establishes that, in the form given in the manuscript, the pieces are arranged for the harp, and it is noted that the music text is, in this respect, an unrepresentative sample of the musical idiom.

Arguments are put forward to suggest that the *crwth* had at some point been at least as central to the musical idiom as the harp. It is suggested that the idiom must originally have been evolved using an instrument capable of being stopped (i.e. an instrument with a fingerboard or a lyre).

The common view that the harp required needed 24 strings or less is shown to be an error due to a series of oversights. It is established that the correct number of strings is 25, as stated by Thurston Dart (1968). His faulty identification of the symbols for them is corrected.

It is argued that such a harp would have had the overall dimensions of a knee-harp, and would have been a precursor of the earliest extant harps.

It is established that a leathern harp with horsehair strings and brays would have been used, at least for accompaniment. The likely construction and acoustic properties of such a harp are specified.

The fact that horsehair strings were apparently precluded for professional use, at least at an earlier time ('Black Book of Chirk') means another type of string was also used. It is argued that this could not possibly have been gut, and must therefore have been metal. Other evidence to suggest the use of metal is put forward. The likely construction and acoustic properties of such a harp are specified, with particular reference to the sculpted representation at Keills, Knapdale. A serviceable reconstruction is used, the sustain of the metal strings providing an extra constraint on the possible dimensions of the musical idiom.

Constraints on string-spacing are discussed. Problems of instrument nomenclature are discussed.

TUNING

Attention is drawn to the fact that whereas many contributors have offered explanations of the possible details of different tunings for different pieces (and even different parts of pieces), no-one has actually set out a case for the necessity of this in the first place. Such evidence as there is for inferring this is indirect, coming as it does from the writings of John Jones and Gwilym Puw, not from the MS. itself or from closely related material. The commonly-made assumption that the use of the word *'cywair'* implies that the harp rather than the *crwth* was retuned to different scales in this musical tradition is examined in detail and demonstrated to be untenable. A large body of evidence to the contrary is compiled.

As the MS. distinguishes clearly between B natural and B flat, and that B flat is used throughout the text, it is advanced that there is evidence to support only one particular tuning: all natural notes apart from B flat. When applied to the text, this tuning is demonstrated to reveal an underlying aversion to chordal intervals involving the tritone and the semitone. This suggests that it is possible (although not necessarily appropriate) to import certain principles of harmony into this field from elsewhere.

Using this tuning, the 'modalities' of the upper part are analysed throughout to reveal a distribution of frequency not unfamiliar in a broader European context: Mixolydian most common, followed by Dorian, Ionian and Aeolian. The limitations of using the modal system of classification here are considered. It is observed that a number of pieces are based on gapped scales, either pentatonic or hexatonic, but the majority are based on diatonic scales.

Partly by reference to surviving early harps from Ireland and Scotland and to depictions of harps, the limits of the compass of the notation are identified as the C of the bass clef (second space) to the G an octave above the treble stave, there being no symbol for E in the bass clef. Thus the commonly held assignment of the compass to an octave lower is rejected.

The issue of tuning sequence is discussed.

TECHNIQUE

Evidence in favour of the use of the nails (on the harp) is discussed.

Some of the proposals of Thurston Dart (1968) are confirmed by reference to the text: the MS. contains some information to specify a) the fingers used to strike, b) which of these strikes were damped, and c) which fingers were used for the dampings. His suggestions as to the particular fingers used to strike are rejected in favour of those identified by Schaefer (1973) and Whittaker (1974), by referring the problem to a computer analysis of all the symbol pairings in the text.

Apparent contradictions between these assignments and the names of some of the particular figures are resolved by identifying the fingers used for the damping, and noting that in each case the damping finger is a different one from that used to initially strike the damped string. This system allows for rapid playing and is similar to the "vestiges of an ancient system" referred to by Bunting (1840). The significance of this is discussed.

Each of these particular figures, and others, are discussed in detail with reference to their use in the text, and in each case the most likely sequence of strings involved and the number of strikes is identified. It is attempted to specify this with a precision such that *ad hoc* decisions do not need to be made in arranging 'bar-by-bar' or piece-by-piece. It is argued that 'quasi-baroque' ornamentation and the widespread use of tremolos is inappropriate.

Here are given the fingering details for the named figures, for the strikings, and below each for the damping of the struck string where appropriate. The symbol " ' " denotes with the back of the nail.

takad y fawd	2 3
	1
y plethiad byr	3 2 and 3 1
	4 4
plethiad y pedwarbys	3 2 4 1 and 3 1 4 1
	4 1 3 4 3
plethiad y bys bach	3 2 1
	4 5
krafiad dwbl	2 3 4
	1 2
krafiad sengl	3 4 2 and 3 4 2 1
	5 5

hanner krafiad	3 4 and 3 4 1 5 5
tafliad y bys	2 3 2' 2 1
plethiad dwbl	2 3 1 1 4
tagiad dwbl	2 3 1 2
takiad fforchog	2 4 1
plethiad mawr	3 2 1 4
plethiad y wenynen	3'
krychu y fawd	1'
ysgwyd y bys	2'
kefn ewin	2' and 1'
ysbongk	uncertain

The unnamed figures are discussed, also in relation to their contexts and pictographs.

From the analysis of the combinations of the fingering symbols, it emerges that it is probable that the text was designed to be fluently sight-read.

The possibility that some damping was done by the lower hand, and the means by which this may have been done, is discussed.

It is argued that arpeggios were not used in the bass, but may have been used sparingly in the treble.

The difficulties in assigning techniques to the *crwth* and *timpan* are discussed. Some suggestions are made as to how the pieces in the text may have been played, in reduced form, on the *crwth* using double-stopping and accordatura.

METRE

It is established that a hierarchy of metrical units exists in the text, based ultimately on a regularly recurring measured pulse in at least parts of the repertory. This hierarchy is outlined in its schematic form.

The exact sequencing of all the abbreviated passages in the text is reconstructed. Those sections for which the measures are specified in the text and elsewhere are analysed in order to establish the principles upon which the measure notations are implemented in the text. It emerges that each of the digital components of a measure can contain up to four chords in the lower part. Only the first of these needs to be drawn from the harmonic group that characterises the component (with rare exceptions, which are certainly not mistakes).

This definition enables the identification of the measures of most of the remainder of the text, by inference from the specified sections, using evidence on the frequency of usage of particular 'measures' in general and on their compound use, and using a principle of iteration whereby melodic formulae are used to extrapolate from assigned sections of the text to unassigned sections.

In particular, these pieces are identified as containing these named measures:

gosteg yr halen	*mak y mwn byr*
gosteg lwyteg	*mak y mwn byr*
kaniad y gwyn bibydd	*tytyr bach*
kaniad ystafell	*korffiniwr and hatyr bach*
kaniad bach ar y go gower	*korffiniwr and tytyr bach*
kaniad kynwrig benkerdd	*korffiniwr*
kaniad llywelyn ab ifan *ab y go*	*korffiniwr*
kaniad san silin	*mak y mwn byr and tyyr bach*
kaniad marwnad ifan ab y go	*tytyr bach*
y kaniad krych ar y bragod *gower*	*korffiniwr*
kaniad hun wenllian	*trwscl trwynci*
kaniad llywelyn dylynior	*fflamgwr gwrgan*

By the formulation of additional principles, notably the insertion of hypermetric interpolations, the remainder of the text is addressed.

Thus the commonly-held view that the Grammars do not reflect practice as revealed by the text as regards metre (i.e. that the pieces are mostly not based on 'measure') is demonstrated to be wrong.

It is argued that these components of the measures were isochronous units,

basically containing four beats, of which many are marked by chords in the lower part. It is suggested that the lower part may be partly abbreviated. The possibility of rests in the lower part is examined. It is noted that some pieces are capable of being interpreted as using 2-beat components, and that therefore each measure may have had two applications - a long metre of 4 beats and a short metre of 2 beats. Some rare passages are identified as using a 6-beat metre.

RHYTHM

(In this context, 'rhythm' is used to describe the subdivision of the basic metrical unit identified in the METRE section of this work, and the occupation by notes of certain points in that subdivision.)

It is demonstrated that a regularly recurring measured pulse existed in at least parts of the repertory.

Partly following Dowd (1950), arguments are put forward against the commonly-made assumption that the 'Scots Snap' predominated. It is argued that the majority of the non-final notes of the figures of fingering technique were played before the beat, that the final notes were played on the beat or shortly after, according to the particular figure, and that any intermediate notes were played on the beat.

The assumption that the figures represent 'quasi-baroque' ornamental grace-notes is challenged. It is suggested that it may be appropriate to consider them as plain notes.

The greatest number of notes lying between two adjacent beats is ascertained to be four, and the possibilities regarding the ratio of time-duration between them are examined. Ranges lying beyond the range even to 2:1 (between adjacent notes starting with the first pair and duplicating between the second pair) are discounted. Whilst the means are not available to narrow the range down further in a final sense, it is inferred from traditional music performance in general that the range would have been quite wide, and that its mean may have been closer to 2:1 than to even, which is in keeping with the natural rhythmic patterns of stressed languages such as Welsh. As a result of these considerations the choice is made as a convention to notate the reconstructed music as sextuple rather than quadruple.

It is noted that further opportunity for insight into these nuances of rhythmic expression and into expressive phrasing might be provided by the reconstructed performance of the poetry to which some of this idiom provided accompaniment.

The text is analysed to detect the ways in which it is inter-related as regards melodic formulae, closes, certain stereo-typed melodic turns etc. It is proposed that each of the clusters thus identified would tend to have its own distinctive rhythmic pattern (determined by considerations of harmony and ease of fingering) within the general metrical framework. This permits the systematic assignment of tentative rhythmic values to the whole of the text, taking advantage of all the textual cues available and ensuring consistency where appropriate.

In this way a consistent method is employed to the problem of rhythm rather than the usual approach of creating 'ad hoc' rules to solve the particular problems presented by each piece, or even each phrase, when viewed in isolation from the rest of the text. The 'structural' approach used here deliberately places little reliance on the column-spacing because clearly the graphic layout of the text is determined by economy not by note-values. The note-values assigned as the second layer are disregarded as spurious as discussed before.

REPERTORY

The defining characteristics of the different architectural forms in the music text are identified.

It is observed that they do not include the most common form used by the sixteenth century eisteddfod tradition (the *Cwlwm Ymryson*) and that the manuscript is therefore an unrepresentative sample of the musical idiom. It is argued that the different forms may have been designed for different purposes. A wide range of different purposes are examined in great detail in the context of each form in turn and evaluated in terms of their probability. Certain tentative conclusions are drawn:

- Both the *Profiad* and *Caniad* forms were used as solo instrumental set pieces. The *Gosteg* form may have been used as an instrumental prelude.
- The *Cainc* and *Cwlwm Cytgerdd* forms were used to accompany the performance of verse, perhaps as self-accompaniment, and possibly the *Gosteg* form also, perhaps collaboratively. (The possibility that these forms were designed to accompany different forms of verse is discussed.)
- The *Cwlwm Cytgerdd* form may have been used for improvisation and as such may not be fully illustrated in the manuscript.

The possibility of concerted playing is discussed, as is the possibility that part of the repertory was designed to accompany dancing.

VERSE

It is demonstrated that at least part of the repertory was designed to accompany the performance of verse. Arguments in favour of almost every particular architectural form being used for this purpose are put forward, but it is noted that for the purpose of the metrical and rhythmic matching of music to verse it is not necessary to be certain which musical forms were used for accompaniment since the broad metrical and rhythmic framework of all forms are suggested to be identical.

It is emphasised that this accompaniment rôle for some of the music is of great significance for method: the verse texts provide an excellent test for any proposition concerning the rhythm and metre of the music - it is unlikely that any model for these aspects of the music which contained an incorrect proposition could yield any possibility whatsoever for carrying the verse, let alone a satisfactory one.

It is argued that no exact one-to-one rhythmic correspondence of music to verse is to be expected, but rather that there would have been a rhythmic 'counterpoint' between the two based around a regularly recurring measured pulse common to both, and that there would have been a general correspondence in manner between the two.

It is argued that there would have been certain constraints on the performance of verse, for example: that wrenched accent would not have been used, and to some extent an unnatural changing of the length of syllables from that of ordinary speech would have been avoided. This last point is taken as confirmation of the hypothesis that the rhythm of the music was such that the note immediately preceding the beat was shorter than that on the beat.

It is proposed that a model can be evolved from the metrical/rhythmic structure of the music as here understood for the delivery of all the major forms of medieval Welsh verse, excluding the *englyn o hen ganiad* forms and the 20 syllable *rhupunt* line. A matching is proposed between the basic components (the digital units) of the measures, composed of 4 isochronous beats, and the short line of verse, composed of 7 to 12 syllables. This short line of verse is derived, where necessary, from longer lines in the usual way, except that the *gair cyrch* of all the *toddaid* formations is taken to form the beginning of the second line of the *toddaid*.

Then from this short line, 3 or 4 syllables (according to the content of the line) are selected to be performed on the beats of the music. If 3, then the fourth beat of the musical line is left as a vocal rest (at least in the case of the *cywydd* forms and in the *esgyll* of the *englyn* forms). The selection of these syllables has to be subject to the following metrical constraints:

a)   the first syllable must be drawn from the first pair of syllables of the line.

b)   the last syllable must be drawn from the last pair of syllables of the line, as dictated by the verse metre.

c)   the intervening 1 or 2 syllables must be selected so that no pair of selected syllables are separated by more than 2 syllables in the case of the *cywydd* and the *esgyll*, or 3 syllables otherwise.

Within these constraints, it is proposed that the selected syllables would be selected on the basis of the strength of stress accent in speech when taking into account the dictates of the *cynghanedd*.

It is proposed that the timing of the delivery of the remaining syllables would be drawn from the same specific range of options as are the notes of the music, and that the precise selection for a particular line of verse would depend upon the natural timing of the line in speech. Thus the syllable - count is here understood to determine in performance the density of the line, not its length.

Settings of examples of each verse metre are given, in the context of the quatrainal nature of much of the musical idiom. Stanzaic division is discussed in relation to the measures. The 12 syllable *rhupunt* metre is set to the scheme of parts of the text identified to scan as 6-beat lines, divided 2+4.

The possibility of applying this model is tested against a considerable body of verse, and it is found not only to be technically possible but also that it can be applied with ease, resulting in a compact delivery with an evenness not far removed from that of speech.

The significance of the establishment of a viable precise model for the rhythmic delivery of the verse is discussed: in particular it is suggested that such a rhythmic delivery might have actually facilitated composition, memorisation and recall.

The possibility of brief instrumental interludes is discussed in relation to the measures and stanzas.

The possibility and appropriateness of extending this method to other syllabic poetry (Gaelic and Norse) and to early Welsh poetry without strict syllable-count is discussed.

The delivery of verse is discussed: whether it was sung, intoned or declaimed. It is noted that this is broadly irrelevant to the rhythmic and metrical matching of verse to the music. Some suggestions are made as to how the music might give insight into the nature of the singing or intoning of verse. Some assessment is made of the likelihood that the verse was declaimed. The melodic models provided by traditional styles of performing syllabic verse etc. in Ireland, Scotland and Iceland are discussed, with the reservation that these appear not to involve the double-tonic antiphony of the *cyweirdant/tyniad* phrasing of the MS. text

(unlike much other material, particularly from Scotland). A pitched declamation on two tones a tone apart alternating in the measures is considered to be a strong possibility for the basis of the delivery.

It is noted that the matching here described allows some insight into the tempo of the music.

EXPRESSION

Links are traced between certain pieces in the text and expressive modes appropriate to feasting, lamenting and sleeping. This raises the issue, in the light of links with Irish musical practice, of the Gaelic division of instrumental string music into three according to mood and intention, which is well-documented. In the absence of any other indication as to expressive modes in respect of the purely instrumental parts of the repertory, this scheme is adopted as relevant.

The pieces mentioned above are used to extrapolate, by means of melodic formulae common to different pieces, to other pieces in the text. Iteration is used here. A number of musical features intrinsic to the text are also used as guides, such as general levels of complexity and the nature of the chords used. Most importantly, the compass and mean pitches of pieces are referred to the Gaelic tradition (which details that absolute pitch was a determinant of expressive mode).

In this way, each piece is assigned to an expressive mode, each with a fairly quantifiable level of probability. It is found that these assignments are independent of architectural form. The results yielded are roughly conformable to what one would predict from the allocation of repertory to verse accompaniment i.e. that *geantraí* is the least common in the pieces identified as designed for instrumental performance but the most common in pieces designed as the accompaniment to verse. *Suantraí* is the most common in the former, but absent in the latter. *Goltraí* is slightly more common in instrumental forms.

The precise qualities of the expressive moods produced by making these assignments is discussed in an attempt to define what might have been the expressive qualities described by the Gaelic system. This is then combined with details of the Gaelic system in an attempt to refine the most probable features of expression of the music in order to be, to some extent, specific as regards, in particular, tempo and attack.

Attention is paid to the idiosyncrasies of individual pieces, in order to detect any cues they may provide about expression. For example, it is argued that at least one piece is narrative in terms of expressive development.

A large number of descriptive references to instrumental string music in Wales are discussed in relation to expression.

REVIEW

Having isolated the range of possible solutions which can apply consistently to the symbols, these readings are applied to the text. The extent to which the propositions that remain viable constitute a range is briefly summarised here:

- a single tuning
- a single technique with very little ambiguity
- a single metrical scheme for most pieces, two schemes for some
- for rhythm, a range lying between two time signatures, with some latitude in the positioning of some notes
- a single expressive mode for some pieces, three for most.

A combination of the solutions which are most strongly indicated is concentrated upon, and the finished product is extensively illustrated by means of exposition, transcription and recording. The present author ventures his opinion that the music that results is both coherent and elegant in modern terms. In particular, phrases are easily identifiable (although expressive treatment of the phrasing is avoided in the demonstration recordings in order not to pre-judge the issue).

The broad context of the music is re-examined in the light of this finished product. It is noted that the music appears to be essentially non-vocally-based, and that there is something of a dearth of extant instrumentally-based music that could be contemporaneous. One possibility is *piobaireachd*, and the two are compared. It is noted that although there are similarities, the two are not sufficiently close to justify a large-scale revision based upon *piobaireachd*. It is argued that there may have been some contiguity between the two (or their antecedents), but as *piobaireachd* is essentially ceremonial music and the Robert ap Huw music text apparently essentially domestic it is concluded that one would not expect a close similarity.

It is noted that it is not known that in medieval Europe in general instruments were wholly confined to vocal-based music and to dance music (whether monodic or polyphonic). It is noted that instruments with many open strings certainly capable of and apparently very suitable for the playing of harmonic-based music like *cerdd dant* were widespread in Europe.

It is noted that it is unclear whether the *cerdd dant* idiom lapsed without successors or whether it had any influence on the development of the instrumentally-based harmonic music that is extant. It is also noted that because the music text is in several ways an unrepresentative and incomplete sample of the idiom, it is necessarily impossible to positively rule out a link between the idiom and

any other music in particular.

It is suggested that in order for any music from outside the text to be identified as being so closely related that it could be used to refine this decipherment, it would need to be a harmonic ground composition with at least one of the common melodic formulae present. The material described here has been widely circulated in order to canvass expert opinion on this search for related material, and the response has been that none has been identified, at least in Ireland and Scotland, although elsewhere to date the situation is less clear-cut.

It is finally concluded that the music here reconstructed represents to some considerable degree the recovery of examples of a very distinctive musical idiom which is no longer extant. It is noted that this distinctiveness is to be expected in the light of its vernacular nomenclature and the way in which its sixteenth-century custodians viewed it as a distinctive entity in need of preservation. It is suggested that it may be an unprecedented situation to be contemplating an 'extinct' music which is so distinctive.