





Pibroch Rhythm: Translating Early Bagpipe Music in the 21st century

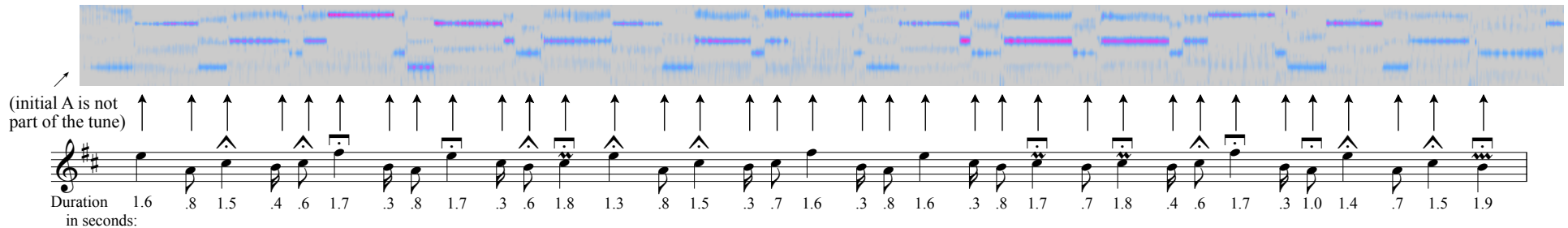
Robinson McClellan

Musical Examples for Chapter 1

KEY:  = slightly elongated
 = slightly shortened
,  = stressed (via ornament)







AUDIO SAMPLE 2:

EXAMPLE 1-1: Pitch Graph with Transcription. Donald MacPherson on Highland Bagpipes. From Siubhal.com's 2004 release, *Donald MacPherson: A Living Legend*

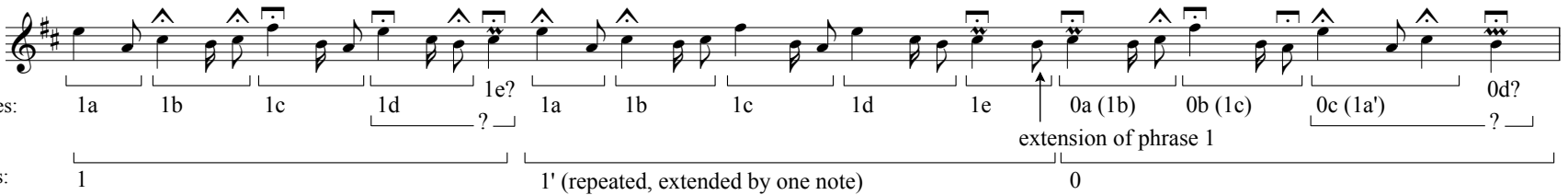


Ex. 1-1: The graphic at the top is a computer-generated pitch analysis of Donald MacPherson's recording of the tune. The horizontal lines are pitches of the melody, with the lowest one being A and the highest F-sharp. Where two horizontal lines run parallel, one above the other, the higher one is a strong overtone and is not part of this analysis. The staff notation below the graph is a simple transcription of the pitches. Below each note, its exact duration is given in seconds (timed with computer software to 1/10th of a second). The rhythmic values given to each note (quarter note, eighth, sixteenth) are approximate; the first two notes are used as the standard duration for a quarter or an eighth, respectively (since the second note is precisely half the duration of the first in the recording). In the rest of the line, notated durations have been chosen simply by rounding off the actual duration to the closest quarter, eighth or sixteenth note value; deviations from the initial durations of 1.6 and .8 are shown by modified fermatas: a square fermata means that the note is slightly longer than notated, and a pointed fermata means that the note is slightly shorter. The timings marked underneath in seconds are the most accurate indicator of duration, and so the modified fermatas are redundant; however I include them for easier reading and easier comparison with following examples. Minor differences in duration between sixteenths are not indicated, as the ear will tend to hear them all the same way—in contrast to longer notes where differences in duration are more immediately audible. Finally, the C-sharps marked with trills show where a brief ornament precedes the note, and the trill on the final B shows a longer ornament. These result from clusters of extremely brief notes which pibroch performers call 'dividing notes', and the role of these clusters in the rhythm will be discussed below in regard to accent and stress. Where there are such ornamental clusters, their duration has been included in the timing designation of the note that immediately follows them. This is based on my own sense of how the ear hears them.

In pibroch scores and performance, performers distinguish between two kinds of grace notes: 'dividing notes' and 'true grace notes' (Buisman 1995 p. 18). The durations of dividing notes are so short that they are almost negligible to the listener—i.e. they take up no rhythmical time. I have left these dividing notes out of the transcription altogether, since it is difficult to hear whether they are present or not, without the aid of a score.

KEY:  = slightly elongated
 = slightly shortened
 = accented (*not* long)
 = unaccented (*not* short)
 ,  = stressed (via ornament)

EXAMPLE 1-2: Possible motive/phrase division



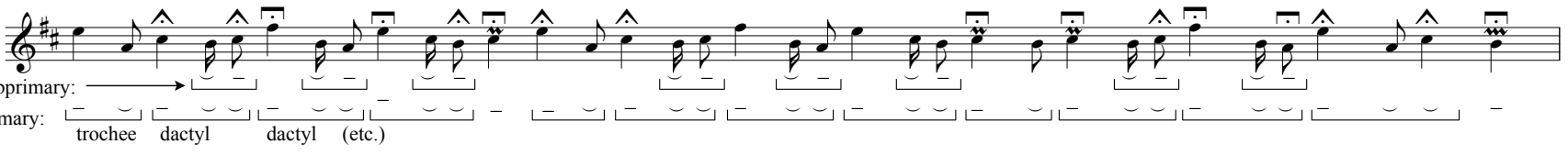
Motives: 1a 1b 1c 1d 1e? 1a 1b 1c 1d 1e 0a (1b) 0b (1c) 0c (1a') 0d?

Phrases: 1 1' (repeated, extended by one note) 0

extension of phrase 1

Example 1-2 shows one possible way to divide the passage into motives and phrases. The designation of 1 and 0 (zero) for the phrases follows Barnaby Brown's method, and will be useful later in the discussion to describe large-scale rhythmic organization. Motives are identified according to the phrase in which they belong, and the presence of duplicate motives between phrases have been shown: 0a = 1b and 0b = 1c (excepting minor differences in duration). The final motive 0c, just before the final B, is similar to 1a except for the C-sharp, which here feels as though it's included in the motive, whereas in phrase 1, the C-sharp belonged to the following motive. 0c contains longer durations but is arguably the same rhythm as 0a and 0b at a slower tempo, perhaps to signal the end of a phrase. There is some uncertainty in the motivic analysis shown here, since the fourth C-sharp in the passage seems isolated: according to the previous pattern it should begin another, similar motive—instead, it is cut short, no further notes are added to the motive, and the next phrase begins. The B at the end of the passage shows a similar problem.

EXAMPLE 1-3: Rhythmic groupings on primary and subprimary architectonic levels, with accented and unaccented notes and stressed notes



Rhythmic Groupings on two architectonic levels

Subprimary: [bracketed groupings]

Primary: trochee dactyl dactyl (etc.)

Example 1-3 follows Cooper and Meyer's notational method for indicating accented and unaccented notes below the staff, in brackets, with accented notes given a short horizontal line and unaccented notes given a short downwardly curved line. The terms "trochee" and "dactyl" identify the terms C&M would use to designate the beginning-accented rhythmic groupings that correspond to the motives in Example 1-2. These groupings, again, are only one way of hearing the passage; alternate interpretations will be shown in the discussion of rhythmic ambiguity below. The subprimary groupings do not represent a meaningful rhythmic analysis of the passage on their own; rather, they simply show subsidiary groupings *within* the primary ones. This point is not central to the overall analysis, but it is helpful to clarify this distinction. The stressed notes in the passage, marked with trills as in the previous examples, happen to align with accents; this is not always the case in pibroch.

EXAMPLE 1-4: Rhythmic ambiguity as the result of pivots and uncertainty between dominant and latent groupings

pivots: unaccented notes belonging to two groupings (etc.)

C# and E each fit one grouping, but not the other

Primary architectonic level:

Dominant (beginning-accented): trochee dactyl (etc.)

Latent (end-accented): iamb anapest (etc.)

EXAMPLE 1-5: Rhythmic ambiguity as the result of uncertainty between accented and unaccented notes, and its effect on phrase structure

ambiguous note

Accent patterns

Accent pattern Ex. 1-4: trochee dactyl (etc.)
iamb anapest (etc.)

Alternate accent pattern: inverted trochee inverted dactyl (etc.) latent iamb?

Phrases:

1

1' (repeated, extended by one note)

0, continuing prev. trochaic pattern

Alternate Phrase 1 repeated, without extension

Alternate Phrase 0, with inverted trochees

Examples for Chapter 2

AUDIO SAMPLE 3

EXAMPLE 2-1: The tune *The Company's Lament* (first line only), as given in the College of Piping's introductory *Piobaireachd Tutor*, with Nether Lorn canntaireachd [copied from printed score]

hin do rodin chere n de he o dro o chere n de

Example 2-1 shows the 'non-mensural' conception of pibroch, according to a standard beginner's book/CD tutor, *The Piobaireachd Tutor*. Under the staff, the syllables corresponding to the sung teaching method known as *canntaireachd* appear. The varieties of *canntaireachd* are endless, and pipers often use personal variants of it. This tutor book gives a good summary of the most widely cited form, known as "Nether Lorn Canntaireachd" following the name of the famous 1797 manuscript made by Colin Campbell of Nether Lorn in Argyll. Some of the essential features of *canntaireachd* can be seen and heard, in this example: First, each note has a particular sound associated with it, as follows: low G = em, low A = en, B = o, C-sharp = also o (the distinction is always apparent in context), D = a, E = e (as in 'ay'), F-sharp = ve, high G = di or vi ('dee' or 'vee'), and high A = i ('ee'). This 'solfege' system also specifies different combinations of ornaments, as well as their combinations. In this example, 'do' refers to a C-sharp with one dividing note before it, while 'dro' refers to a C-sharp with a three-note cluster and 'o' refers to a B.

EXAMPLE 2-2: Example 2-1 repeated (*The Company's Lament*) with transcription below showing accentuation and rhythmic groupings seemingly intended by the notation and teacher. Note that clusters of 'dividing notes' here constitute syllables in the *canntaireachd*, and must therefore represent felt note values

Primary Groupings: 1 2 3 4

iamb iamb iamb iamb trochee trochee iamb iamb
or: inverted trochee inverted trochee

Example 2-2 repeats the music of Example 2-1, with a transcription of Audio Sample 3 in the lower staff combining the format of the written sample with modifications based on the way it is heard: for example, the first dividing note cluster is understood, and sung, as essentially a B grace note surrounded by two low G dividing notes. In contrast to my earlier transcriptions in Chapter 1 of *Maol Donn*, the cluster here receives a note value, since it is conceived as such by the teacher who sings it in the audio sample.

AUDIO SAMPLES 4, 5, 6, 7

EXAMPLE 2-3: Four renditions of *The Big Spree*, with durations as percentages of the whole duration of the passage. Boxes show notes in each version that depart significantly from the other three.

2-3a Donald MacPherson, pipes (total time: 17 seconds)

Audio Sample 4

9.62% 3.07 8.38 6.55 9.85 3.48 11.27 3.24 2.36 5.31 1.59 9.32 5.07 7.88 2.18 10.91

2-3b William McCallum, pipes (18 seconds)

Audio Sample 5

8.34% 3.7 7.72 4.2 10.13 9.29 7.44 2.68 3.75 5.71 1.45 9.74 3.63 9.01 1.68 11.48

2-3c Robert Nicol, pipes (21.5 seconds)

Audio Sample 6

8.73% 1.54 9.85 3.08 10.6 6.77 8.22 1.63 2.99 8.68 1.17 11.06 3.27 8.96 1.3 12.14

2-3d Donald MacLeod, canntaireachd (16.5 seconds: fastest tempo, almost equivalent to MacPherson)

Audio Sample 7

7.38% 3.69 9.38 5.75 11.99 6.42 11.08 .48 2.6 3.33 3.63 9.32 5.15 9.26 1.33 9.2

"He o da dro ha ro long a ha vee o dra ree o dra dn"

Example 2-3: In contrast to my transcription of *Maol Donn* in Example 1-1, the numbers below the notes do not represent seconds (see Ex. 3-10). Because the tempos are slightly different, I have divided the duration of each note into the duration of the whole passage. The resulting figures therefore show the durational percentage of the whole that each note takes up. This allows comparison of durations apart from differences in tempo. Minor differences of duration are shown with modified fermatas, while more noticeable differences are shown by different notated durations (eighth vs. quarter, etc); boxes shown where one player differs from the other three.

Comparison of the four versions shows interesting discrepancies (which are already evident to the ear). For example, MacPherson cuts the second A much shorter than the other three, and reverses the durational ratio of the two C-sharps shown by the box. This causes the listener to group the second C-sharp in the box with the E that follows it, whereas in the other versions the two C-sharps form a subprimary grouping. Nicol's version is distinctive for the much shorter duration of the initial A. MacLeod and MacPherson have almost identical tempos, and both hold the second E longer. NB: Though MacLeod takes a breath where shown, I feel that he cuts the A short so that the note plus the breath indicates his intended duration for the A: therefore I group the note and rest as a single duration of 6.42.

EXAMPLE 2-9: Peter Cooke's transcription of a 1967 performance of *Maol Donn* by John MacLellan

"Cadence E"

1 2 3 4 5 6 7 8 9 10 11 12

Hin dro - o ho-ve - o hin - de - o ho-dro

Example 2-9 is an exact copy of the first line of Cooke's "Example 2", except that I have numbered the notes following a previous example in his article (see my Example 2-13). In his transcription, four different performers played with a uniform pattern of durations, except for minor differences on notes 2 and 8. Cooke describes his transcription method: "Note values were determined with the aid of a superimposed time signal giving pulses every 1/10th second and the whole played back at slow speeds during transcription" (p. 58); also "Graces and cuttings have been omitted. For completeness, one further source of information is added—the *canntaireachd* vocabales as they appear in the Nether Lorn MS" (p. 50). Note that the initial E has no *canntaireachd* syllable associated with it - this indicates its status as an ornamental note, rather than a 'true' melody note - a point we will return to in Chapter 3.

AUDIO SAMPLE 9

EXAMPLE 2-10: Donald MacLeod, *canntaireachd* (singing) - transcription

count-sings: "two one two and one two and one two and one two two one two and one two and one two and one two and two and one two and one two and two and two"

(breath) (breath)

This E is a 'wrong' note, presumable sung for ease and not intended to replace the B we expect here, which he plays on the chanter subsequently

This low G stands in for the grace note cluster shown in Example 2-14

Before singing, MacLeod remarks "basically the ground might have this sort of pulse (line one, taking two bars to a phrase):"
(NB: I have not included barlines, not being completely sure where he might intend them)

AUDIO SAMPLE 10

EXAMPLE 2-11: Donald MacLeod, practice chanter (transcription)

EXAMPLE 2-12: Donald MacPherson, pipes; this is the transcription of Example 1-1, reinterpreted according to the rhythmic organization of Example 2-10.

Duration in seconds: 1.6 .8 1.5 .4 .6 1.7 .3 .8 1.7 .3 .6 1.8 1.3 .8 1.5 .3 .7 1.6 .3 .8 1.6 .3 .8 1.7 .7 1.8 .4 .6 1.7 .3 1.0 1.4 .7 1.5 1.9

The markings I use to show elongation and shortening (square versus pointed fermata) must here be adjusted to accommodate the altered time values of the notes (though of course this does not change the performed durations!): for example, the first C, now being written with a shorter time value (dotted eighth), must here be marked as elongated rather than shortened as it was in Example 1 (where it was notated as a crotchet), since the elongation symbols are relative to the notation—and the felt meter it implies—rather than to performed duration, which is the given in this case. See again AUDIO SAMPLE 2

EXAMPLE 2-13a-h: Eight different scores for *Maol Donn*, dating from between 1826 and 1959, copied from Peter Cooke's "Example I" except that I have omitted dividing notes except where the initial E has been written as a grace note. This example shows the bewildering variety of rhythmic interpretations. Thomason's rendition of 1900 seems to come closest to the way MacPherson performs the tune, and the way MacLellan and others performed it in Cooke's transcription (see my Example 2-9). The sources are given as cited by Cooke; for an in-depth study of the history and methods behind these and other collections, see William Donaldson's *The Highland Pipe*.

2-13a Peter Reid manuscript, c. 1826 (School of Scottish Studies photostat copy)



2-13b Angus MacKay manuscript vol. I, 1826 (National Library of Scotland MS 1681-3)



2-13c William Ross manuscript, 1869 (National Library of Scotland MS 3040)



2-13d David Glen: *A Collection of Ancient Piobaireachd*, 1880-99 (Edinburgh)



2-13e General C.S. Thomason: *Ceol Mor. A Collection of Piobaireachd*, 1900 (London)



2-13f G.F. Ross: *A Collection of MacCrimmon and other Piobaireachd*, 1929 (Glasgow)



2-13g Piobaireachd Society vol. 6, 1936 & *The Kilberry Book of Ceol Mor* by Archibald Campbell, 1953 (Glasgow)



2-13h Roderick Ross: *Binneas is Borerraig* vol. 3, 1959 (Edinburgh)



EXAMPLE 2-14

2-14a: *Maol Donn* copied from the *Kilberry Book of Ceol Mor*, with dividing notes omitted. The analysis shows the rhythmic organization the notational conventions imply.

2-14b: Example 1-1 is recopied here, now with the accent patterns, groupings, and phrase divisions indicated by Kilberry's score, copied from Example 2-14a

EXAMPLE 2-15: *Maol Donn* copied from the 1959 pibroch collection *Binneas is Borerraig*, with dividing notes omitted and other minor modifications for easier reading.

Binneas introduced innovations into piping notation, which I have partially omitted here: tunes are represented on three-line staves, without clefs, bar lines, key signatures (which are excluded from all pibroch scores anyway), or time signatures. *Binneas* also identifies the types of variations by showing them in different colors (red, green, black, grey). This example serves here only to show durations, so I have not preserved many of these notational details.

EXAMPLE 3-3: *Maol Donn* copied from Peter Reid's MS (c. 1826), as cited by Peter Cooke, 1972, with dividing notes omitted. The eighths with slashed stems are presumably sixteenths. The analysis shows the rhythmic organization that the notation implies. Viewed this way, the passage here, which corresponds to the first phrase, contains eight accents.

Musical notation for Example 3-3. The staff shows a sequence of notes with stems. Brackets below the staff group notes into pairs, with labels '(inverted trochee)' under two of these pairs. The notes are: G4, A4, B4, C5, B4, A4, G4, F4, E4, D4, C4.

EXAMPLE 3-4: *Maol Donn (Gaelic song)* - copied from Peter Cooke's transcription of the singing of Kate MacDonald (1972); in his version, spacing between notes shows duration; since this example here merely serves to show the notes and accentuation, I have not reproduced the spacing here. Cooke's transcription matches the way I was taught the song at the *Ceòlas* school for Gaelic language and song, summer 2006, by Rona Lightfoot. The brackets show two primary groupings, each of which has one primary accent (my knowledge of Gaelic is imperfect, and so I admit the possibility of some error here).

Musical notation for Example 3-4. The staff shows a sequence of notes with stems. Below the staff, the lyrics are: "Cha bu shea__ bhach dhomh 'tfhao - tainn, 'se mo ghaol am Maol__ Donn,". Brackets below the lyrics group the words into two primary groupings: "Cha bu shea__ bhach dhomh 'tfhao - tainn," and "'se mo ghaol am Maol__ Donn,".

EXAMPLE 3-5: *Maol Donn* Comparison between Reid's pibroch version and the song, with the rhythmic organization then applied to the durations we observed in MacPherson's performance, Example 1-1. The eight accents I inferred in Reid's score (Ex. 3-3) are now reduced to two - one in each of its two primary groupings - following our comparison with the song (Ex. 3-4). The analysis now contains only two accents in this phrase, thus conforming to MacDonald's view of four 'stresses' (accents) per line (the phrase shown here is half of the first line). Also note that in the two pibroch versions, I have marked all of the 'theme' notes as being either accented or unaccented - there are four total per primary grouping, with three unaccented theme notes surrounding each accent. What I term 'grace notes' - notes leading to or following a theme note (see Chapter 2) - are given here as either ornaments or as the second note of each inverted trochee (C-sharp in the first grouping, B in the second).

This analysis can only be imperfect, due to the lack of direct historical link between the song and pibroch, and the fact that both versions would almost certainly have evolved since their respective pre-19th-century origins. Also, my identification of accents is based on imperfect guesses - in part due to the lack of definite links and in part due to my imperfect grasp of Gaelic.

Comparison of Song, Pibroch per Reid, and Pibroch per MacPherson. The image shows three staves of music. The top staff is labeled "Song (Ex. 3-4)" and shows the lyrics "Cha bu shea bhach dhomh 'tfhao - tainn, 'se mo ghaol am Maol Donn," with brackets indicating two primary groupings. The middle staff is labeled "Pibroch, per Reid (Ex. 3-3)" and shows the musical notation with brackets and labels for inverted trochees. The bottom staff is labeled "Pibroch, per MacPherson (from Ex. 1-1)" and shows the musical notation with brackets and labels for inverted trochees. Vertical double-headed arrows connect the lyrics to the notes in the pibroch versions.

AUDIO SAMPLE 12

EXAMPLE 3-6: Flora MacNeil singing a traditional Gaelic song of anonymous composition. According to MacNeil the song is also known in Ireland. The transcription serves only to show the text alignment with the notes; rhythms are approximate. Accents show text and melodic accent, which coincide. Note that there are five accents per phrase. Not transcribed at pitch. Lyrics copied from www.geocities.com/celticlyricscorner



Thig trì nithean gun iar - raidh An t - ea - gal, an t - eu - dach, 's an gaol 'S gur_ beag a' chùis mhas - luìdh Ged ghla - cadh leo mis' air a h - aon
Three things come without asking Fear; jealousy and love And it is no cause of shame Though I too have been taken by them

'S a liuthad bean uasal *Seeing how many ladies*
 A fhuaradh 'sa chiont an robh mi *Have been found guilty like me*
 A thug a gaol fuadain *Who gave love that proved vain*
 Air ro bheagan duaise 'ga cheann *And little profit to them in the end*

Sèist: (*Chorus after each verse*):
 Air faillirinn, illirinn *Air faillirinn, illirinn*
 Uillirinn ho ro 's mi caoidh *Uillirinn ho ro I mourn*
 'S cruaidh fhortan gun fhios *It was a cruel fate that came unaware*
 A chur mise fo chuing do ghaoil *And left me under the yoke of your love*

etc.

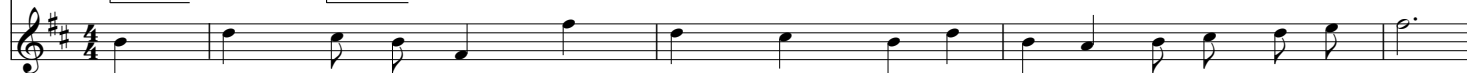
AUDIO SAMPLE 13

EXAMPLE 3-7: Gaelic psalm singing from the Isle of Lewis. Tune: *Walsall* text: Psalm 13. The top line is a transcription, not at pitch. The bottom line is from Anchor's Collection of Psalm Tunes, c. 1720, a psalter like the one the tune would have been originally sung from.

Audio
Sample 13



1720 Psalter



EXAMPLE 3-8: Angus Mackay's 1838 version of *I got a Kiss of the King's Hand* (dividing notes omitted), with text of the song printed underneath as it appears in his score; I have preserved apparent omissions in Mackay's text, including the final bar shown here (whole passages go without text in Mackay's version). Note different spellings than MacDonald and Stewart use in Example 3-9. Also note that in terms of rhythmic organization, Mackay does not place any importance on equal line divisions of any kind; this example preserves the line divisions of his score in which the final bar shown here begins the next musical unit.



Thuir mi Pòg s' Pòg s' Pòg ga'n d' thuir mi Pòg o' Laimh an Rìgh.



Thuir mi Pòg s' Pòg s' Pòg Thuir mi Pòg o' Laimh an Rìgh.

AUDIO SAMPLES 15-17

EXAMPLE 3-9: Three transcriptions of *I got a kiss of the King's hand* (aka *Fhuair mi pòg*), corresponding to Audio Samples 15-17. Numbers below the notes indicate their percentage of the total duration of the passages. Boxes show accented theme notes.

3-9a: Robert Nicol, pibroch version, 1974 - 35 seconds total

Audio Sample 15

2.62 4.11 .17 4.73 .51 5.54 .48 6.17 2.26 2.88 4.31 .34 4.66 .69 4.11 1.86 6.43 2.51 4.71 .34 4.74 .54 4.49 .6 5.57 2.86 4.63 .4 4.23 .89 3.77 1.82 6.17

3-9b: Allan MacDonald, song version, 1998 - 25 seconds total (includes the lyrics as sung by Margaret Stewart in Audio Sample 14)

Audio Sample 16

4.27% .83 5.66 1.42 3.59 .71 7.2 1.23 3.52 .87 5.46 1.46 3.36 1.19 7.28 3.72 .87 6.25 1.5 3.9 .9 6.72 1.3 4.15 .9 5.85 1.5 3.9 .75 9.57

(*Fhuair mi pòg, is pòg, is pòg, O fhuair mi pòg, a làimh an Rìgh, Fhuair mi pòg, is pòg, is pòg, O fhuair mi pòg, a làimh an Rìgh,*)

3-9c: Allan MacDonald, pibroch version, 1998 - 27 seconds total (close to song tempo above, 30% faster than Nicol's version)

Audio Sample 17

1.96% 3.15 .3 5.85 .37 3.7 .37 7.4 1.67 2.40 3.51 2.6 6.11 1 3 1.33 6.85 1.74 3.55 .3 6.3 .63 3.33 .52 7.59 1 4.26 1.07 6.19 1.04 2.15 2.7 7.48

arrows show pitch substitution within sonority "1"

Ex. 3-10: In contrast to Example 1-1 (and like Example 2-3), the durations below the notes show their percentages of the duration of the whole passage. Since MacDonald does not propose a fixed performance practice but rather an intrinsically flexible one, I do not promote his precise durations as an ideal. But a comparison with Nicol does show interesting differences (which are already evident to the ear) in the way they understand the tune. For example, MacDonald's initial E is shorter than Nicol's, and the following A is longer. This reflects MacDonald's belief that "cadence Es" are too long in mainstream performance (though in this case the E seems to be an important note in the song version as well). The three following C-sharps also have different relative durations in each example: in Nicol's recording, each is longer than the last, whereas for MacDonald, the middle one is shorter than the other two. This gives quite a different effect. MacDonald's version also follows the tempo of his and Stewart's version of the song, (the passage has almost the same duration in both of MacDonald's renditions). His version also matches the foursquare rhythmic organization of the song: the four half-notes in each half of the example correspond to the four longest notes in corresponding positions in the song (the final two in the song, C-sharp dotted-quarter and A half-note are replaced by E and C-sharp, respectively, in the pibroch; this is possible because both replacement notes share the consonant sonority against the drone of the notes they replace). The four notes shown in boxes are accented theme notes—MacDonald clearly follows the example of the song in emphasizing them. If Nicol likewise conceives of the same four theme notes as being more structurally important than other notes, he does not show it by giving them longer durations, as MacDonald does (for example, the first A, an unaccented theme note in the song, has almost the same duration as the first C-sharp, which is a theme note).

EXAMPLE 3-10: Copied from Roderick Cannon's description of *The Massacre of Glencoe*, from *The Highland Bagpipe and its Music*, p. 71

3-10a

3-10b

Examples for Chapter 4

AUDIO SAMPLE 18

EXAMPLE 4-1: *Ronald MacDonald of Morar's Lament*: A free interpretation

The three staves represent alternate ways of interpreting this passage, as represented by the durational limitations of standard notation (losing the subtlety of performed timings). The kinds of patterns shown here continue throughout the passage. The point is to show that many interpretations are equally present to the listener's perception, and that the continual ambiguity/confusion between them (and other hearings I have not written here) keeps the listener constantly unsure of where accents and groupings lie; this quality of the music prevents the listener from settling into a 'groove', lending an overall sense of constant forward suspension. At times there is more uncertainty (the beginning of this passage), while at other times it is less ambiguous (the end of this passage). The groupings marked 'Primary groupings' show the accentuation patterns at a larger architectonic level than those immediately above. The use of the word 'meter' is intended in its Cooper & Meyer sense, since the durations allow the listener to hear regular pulses. This example is neither an accurate transcription, nor intended as a performance score.

The image shows three staves of musical notation in G major (one sharp). Each staff represents a different interpretation of the same passage. Below each staff, 'Primary groupings' are indicated by brackets and labels. The labels are as follows:

- Staff 1:** 3/4 meter, 2/4, 3/4, 3/4, 3/4, 3/4, 4/4, 3/4
- Staff 2:** 3/4 meter, 3/4, 3/4, 3/4, 3/4, 3/4, 4/4, 3/4
- Staff 3:** 2/4, 2/4, 2/4, 2/4, 2/4, 3/4, 3/4, 3/4, 4/4, 3/4

AUDIO SAMPLE 19
EXAMPLE 4-2

I got a kiss of the King's hand
(Thug mi pog do lamh an Rìgh)
Theme and Variations

Piobaireachd
(Classical Highland Bagpipe Tune)
attr. Patrick Mor Mac Crimmon
arr. Robinson McClellan

♩ = 100 Very Free

Musical score for the first system. It includes five staves: Oboe 1, Oboe 2, Oboe 3, Eng. Hn., and Drone. The key signature is one sharp (F#) and the time signature is 14/4. The Oboe 1 part begins with a fermata and then plays a melodic line starting at measure 14, marked *f sempre*. The other woodwind parts (Oboe 2, Oboe 3, Eng. Hn.) are silent, indicated by a dash. The Drone part consists of a continuous series of chords, also marked with a dash.

* The drone can be created by any instrument or machine which can be set to play continuously throughout the piece.
Its tone should be rich and highly resonant, with audible, ringing overtones and no vibrato.

(continues)

Musical score for the second system. It features three staves: Oboe 2, Oboe 3, and a continuation of the Drone. The key signature is one sharp (F#) and the time signature is 14/4. The Oboe 2 part continues its melodic line, marked *f sempre*. The Oboe 3 part enters at measure 12 with a melodic line, also marked *f sempre*. The Drone part continues with its chordal accompaniment.

Musical score for the third system. It features three staves: Oboe 2, English Horn, and a continuation of the Drone. The key signature is one sharp (F#) and the time signature is 14/4. The Oboe 2 part continues its melodic line. The English Horn part enters at measure 12 with a melodic line, marked *f sempre*. The Drone part continues with its chordal accompaniment.

(end of excerpt)