The Design of It: Patterns in Pibroch

The secret to composing, memorizing, and appreciating *ceol mór*. *(Part III)*

by Barnaby Brown

THE PIBROCH REPERTOIRE IS A treasure chest left by a culture long extinct. Perhaps it was foolhardy of me to tip its contents onto the floor, as it has taken ten years of puzzling and changing my mind over and over on how to interpret the "corrupt" or irregular works for my thoughts to stabilize. Only now am I ready to risk "putting my head on the block" and share my conclusions in print. My mental battles with tunes that, initially, seemed to have no rhyme or reason to their structure, have become less frequent and more easily won during the last decade. I doubt another Rosetta stone will crop up, forcing me to revise my system of arraying the repertoire. I have hunted long and hard and suspect it will be another that finds it.

In Part I, I explained why pibroch classification was due a re-think. Pibroch is being presented on paper in an unnecessarily confusing way, and it is a shame if only devotees are able to appreciate its many varied forms. In Example 1 of Part I (Winter 2004, page 52), I sketched out a complete overview of pibroch construction—the whole repertoire in a nutshell. This perspective might seem heretical to those who believe that Archibald Campbell, Seumas MacNeill, and the early transcribers understood the composers correctly, because, agreeing with Robin Lorimer, Joseph MacDonald, and medieval Welsh music theory, I arrange all *urlar* designs in four quarters. This makes it easier to see how each color in pibroch's structural rainbow blends into the others, and avoids the inelegance of arbitrary decisions where the *urlar* can be divided equally well into even or uneven lines.

In Part II, I introduced the idea of phrase elongation and explained how this was a musical asset. Pibroch's elasticity of phrase length is foreign to dance music and has caused many a furrowed brow, not just my own. Failure to appreciate elongation or reduction as an authentic musical tool has resulted in the mutilation and expurgation of numerous works since editors began putting themselves between the literate player and the non-literate tradition bearer. Four of the design families introduced in Part I were illustrated, explaining how the patterns of As and Bs in Example 1 relate to real music. In the third and final part, I illustrate the remaining five design families. But first, I present further evidence for my most heretical point: that seventeenth-century pipers never thought in uneven lines with the proportions 6,6,4 or 4,6,4,2.

ENLIGHTENED LINE ARRANGEMENTS

The first pibroch transcribers were inconsistent, and in some cases produced line arrangements that cannot possibly reflect the composer's mind. Colin Campbell, in particular, shows an alarming lack of structural perception. According to Angus MacKay, Colin's father Donald studied with one of the MacCrimmons, presumably Malcolm, for "a considerable time, and was esteemed a performer of merit" (1838: Introduction, p.13). Because Donald was born in 1726 or 1727, his musical education may have been curtailed at the age of 19 by the Jacobite rebellion. We cannot be sure how thorough his education was compared to that of pipers a generation earlier, or to what extent the theoretical rudiments of

pibroch (if these were ever expressed) had been forgotten by the time Colin was learning in the 1770s.

Colin's manuscripts are full of bizarre line lengths. Example 9 is one of the more ludicrous, and suggests that the structural divisions of his scores arise not from traditional authority, but from a dogmatic belief that lines should start or end with the same melodic figure. Colin's obsession with superficial melodic detail blinded him to the underlying structure. Other mistaken line arrangements include 4,5,7 where each line ends *droen hioen* (C.i.37: *urlar*); and 4,5,5,2 where each line ends on a similar motif (C.ii.59: all 6 variations). As in Example 9, an underlying structure of 4,4,4,4 is misunderstood, and in the last example, Colin switches to 4,5,5,2 after presenting the *urlar* in 4,4,4,4.

So, why did Colin Campbell, John MacGregor, and Angus MacKay all present the *urlar* in three lines, the first of which was often repeated? Could an influential guru have propagated a novel, overly simplistic mantra? A more likely explanation, I believe, is that another tradition was guiding their thinking more powerfully. The musical influences surrounding Gaelic piping were always everchanging, and our first transcribers lived in a different musical age from that of the composers. Eighteenth-century Scotland was a centre of the Enlightenment, and exciting changes were taking place at all levels of society. This was when newspapers, novels, coffee houses and public concerts were born. In the new public sphere, composers such as Handel and Haydn were setting the trend. I believe that Campbell, MacGregor, and MacKay unconsciously applied "Enlightenment"

EXAMPLE 9. Ornate design—"Slàn gun tig Seonachan" ("Johnny, may you come home safely")

rules of cadence and phrase structure to music born in a medieval, feudal age.

While Haydnesque phrasing works in pibroch to some extent, it becomes unsustainable when one includes the music that fell out of transmission in the nineteenth century: the many tunes and settings that didn't fit Enlightenment rules, as understood by Highland pipers and landed gentry. Whether one sees this body of "lost pibroch" as inferior or superior to what survived in transmission to the present depends on two things: the musical rules one applies, and the musical taste one has personally developed. My ability to write this article, for example, must be helped by the fact my CD collection contains three parts Early music (before 1750), two parts World music (mostly field recordings), and only one part everything else. Music is a revealing expression of any society, reflecting its innermost workings. Knowledge of medieval or tribal music certainly makes it easier to empathize with the original spirit of pibroch.

ORNATE

a a a a b a B
a a a a b a B A
b a B A B
a b A B A

Discovery of the Ornate pattern is the greatest "eureka" moment of my research so far. I was transcribing unpublished tunes from Colin Campbell's manuscript, and was already familiar with the second half of this design thanks to Roderick Cannon's article, "A Note on the Construction of Even-Lined Piobaireachd" (1995, *Piping Times* 48 Nos. 1–2). Normally, pibroch design concerns the substructure—the pattern of linear sonority. The more creative the composer, the harder it is to perceive the underlying design. In the most "musical" works, the design is transformed—if not in the *urlar*, then in the variations. The music goes somewhere new, it does not cover the same ground, as having conventional variations all the time would be dull.

In "The Tune of Strife" (Example
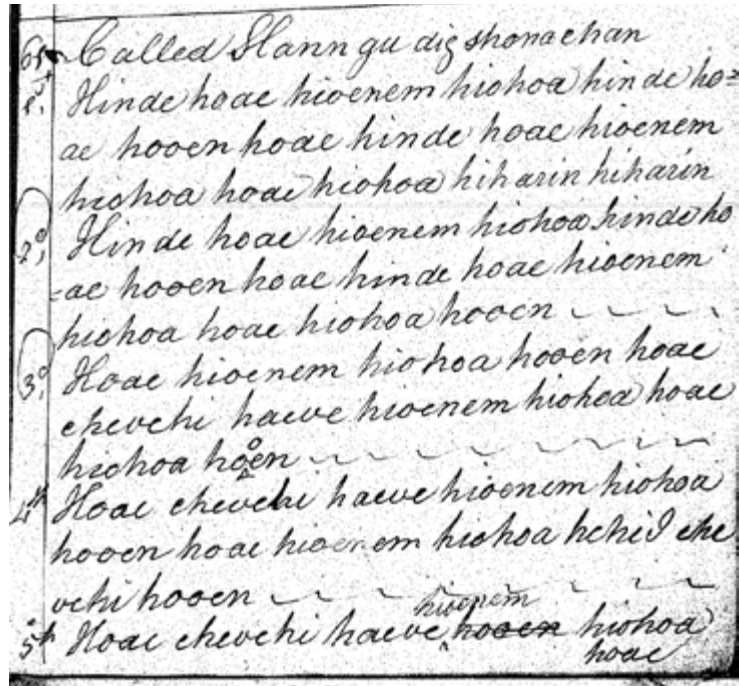
Example 9a. Note how lines 3, 4, and 5 each begin with "Hoa.e." Colin Campbell determined his line division here by initial rhyme, failing to perceive the more conventional metre shown in my edition, Example 9b (C.ii.61).

*Example 9b. The five uneven lines of Campbell's score (16,15,12,12,9) were presumably even lines of 16,16,16,16 in the composer's mind. This is one of many suspect line arrangements in Campbell's manuscripts. His 6,6,4 arrangements (e.g., Examples 2b and 14a) arise from an identical musical logic, so may equally misunderstand the composer. As in Example 2c, many of the **A** sections here contain an alternation of sonority (1011), turning **abA** into a statement of the pattern* korffiniwr *(11001011, see Example 12b). This is typical of Ornate works.*

EXAMPLE 10. Ornate design—"The Tune of Strife"

Example 10a. *The urlar in Colin Campbell's manuscript (C.ii.23). The faint line reads "hintrotra hiotrarodin himbantro." Donald MacDonald Senior and Junior agree with Campbell in calling this "Ribean Gorm (Blue Ribbon)", a title now attached to another work. The title "Port na Strigh" comes from Angus MacKay's manuscript (K.i.43).*

Example 10b. *My transcription of Campbell's score (October 1997). I used a shorthand that avoids re-writing any phrase repeated by Campbell exactly. This helps bring the structure into focus and makes it possible to memorize this particular pibroch in half an hour, its constituent material is so slight. It must be one of the most geometric works in the repertoire, the musical equivalent of a carpet page in the insular Gospel books (e.g., Book of Lindisfarne, Book of Kells, and Book of Durrow).*

10), the whole Ornate design is employed on the surface level of melodic repetition. This is the most extreme, "bottom hand" tune I've encountered. It has only four notes, G A B – D, and the pattern is reiterated, without any structural development, in all eight movements. Example 10b is my original transcription of this arcane bardic relic.

To the examples already identified by Cannon, which share this design in their second halves—"Lament for the Harp Tree" (12:362), "The Park Piobaireachd" (4:113 & 115), and "Johnny, may you come home safely" (Example 9)—I would add two that follow the entire Ornate schema: "The Tune of Strife" and "Hiharinõdin Hiharindro" (C.ii.8); two that might originally have been composed using this schema: "The Comely Tune" (K.i.39) and "In Dispraise of MacLeod" (K.ii.92); and five works with unique structures bearing a stronger affinity to this design than to any other: "Beloved Scotland" (6:178), "Taviltich" (C.i.5) "The Battle of Bealach nam Brog" (9:246), "The MacDonalds' Gathering" (C.ii.80 *et al.*), and "The MacDougalls' Gathering" (5:141).

WELL-WOVEN

b a **B** A **B**
a b A **B** A

Examples of the Well-woven design have been called "Secondary" pibrochs since the publication of *The Kilberry Book of Ceol Mor* in 1948. There is nothing secondary about them, and I propose a new label, "Well-woven", drawing attention to the feature distinguishing this design from the "Woven" design (illustrated below): the extra detail of interlace, ba and ab, in the 1st and 5th eighths. In "Black Donald's March" (Example 11), the design is evident in the melodic foreground. Restraint is the key to beauty in pibroch, and this example is typical of the economy exercised by great composers, using the minimum material to maximum effect.

Other examples of this design
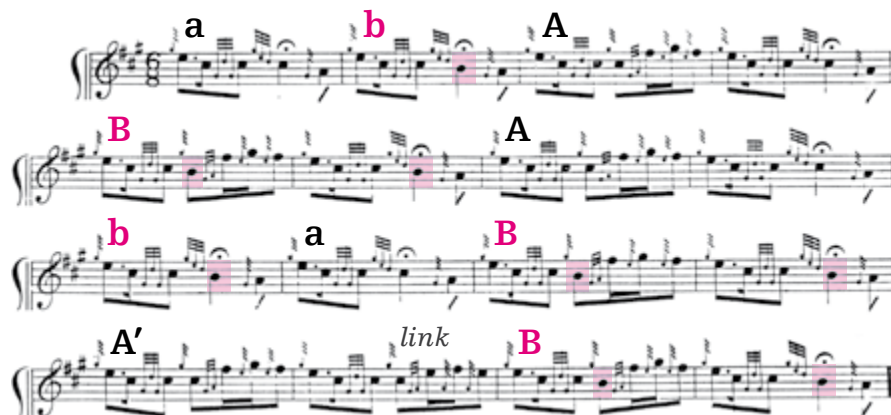
EXAMPLE 11. Well-woven design—"Black Donald's March". *The highlighted notes mark the change in sonority that distinguishes **A** from **B**. A tapestry of music is woven by the alteration of a single note: a consonant C in the **A** phrases becomes a dissonant B in the **B** phrases. The finishing touch to this urlar is the link binding the last two phrases into one, which elegantly anticipates the uninterrupted drive of the doublings (Donald MacDonald,* Ancient Marshall Music of Caledonia*, c.1819, p.106).*

include "My King has Landed in Moidart" (5:157), "Too Long in this Condition" (7:211), "My dearest on earth, give me your kiss" (11:352), and "Donald Gruamach's March" (2:71). It would be unmusical if such designs were followed religiously in the melodic foreground, and it is generally easier to perceive the structure in the variations where, more often than not, the melodic invention of the *urlar* is stripped away and the design becomes more starkly prominent.

LYRICAL WELL-WOVEN

b a **B** b a **B**
a b A **B** A

The Lyrical Well-woven design was identified by Roderick Cannon in 1982. He recognized it in "The Old Woman's Lullaby" (4:113), "Lament for the Viscount of Dundee" (Example 12), "The King's Taxes" (5:137), "In Praise of Morag" (1:22), and "MacLaine of Lochbuie's Lament" (11:330). The only other example I have found is "Left Hand" (14: 490).

In the Piobaireachd Society edition, both "MacLaine of Lochbuie's Lament" and "Left Hand" were badly disfigured. Such editorial high-handedness, normal in the 1890s, was still alive in Scotland in 1986. Had pibroch theory become a religious creed, or was

Scotland a century behind the times? Either way, beautiful, dramatic structures were vandalized and replaced by lifeless settings with "zero" authority.

Unless you believe pibroch movements should be built like toasters and housing estates, a distressing majority of Piobaireachd Society settings reflect a lower musical intelligence than that enjoyed by pipers and their audiences around 1800. No wonder the BBC aren't interested in pibroch! All serious performers should be looking at the original sources—they are, quite simply, richer and more musical than what a couple of well-meaning amateurs decided was fit for public consumption.

Had Archie Kenneth understood the Lyrical Well-woven design as a basic framework, within which the composer was free to exercise genius, the worst acts of editorial vandalism would have been avoided. In the notes to "MacLaine of Lochbuie's Lament," we read that the variations "are obviously defective." Far from being defective, the reduction in phrase length produces a rise in momentum. This is an attractive musical development that increases contrast, and therefore the musical effectiveness of the return of the *urlar*. It is dull to repeat the *urlar* at the end of a performance if there has been no

EXAMPLE 12. Lyrical Well-woven design—"Lament for the Viscount of Dundee"

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CUMHA CHLABHERS.

The Viscount of Dundee's Lament.

A. D. 1689.

Example 12a. *The sonority of the first four bars, baB, follows the pattern 0011 0100, known in Wales as "korffiniwr" (Example 12b). In "Lament for the Viscount of Dundee", this pattern reappears in diminution (twice as fast), with "1"s and "0"s reversed in the final phrase A₂. An increase in harmonic rhythm in the run up to an ending is normal, not only in pibroch, but throughout Western music (Angus MacKay, 1838, p.74).*

Example 12b. *This pattern of alternating sonority permeates the pibroch repertoire, often with "1"s and "0"s reversed. "Korffiniwr" is one of 24 musical designs taught in Wales in the sixteenth century, believed to have been approved by a council of musicians in Ireland in the twelfth century (Robert ap Huw's MS, c.1613, p.107).*

development, no musical journey to come home from. We should remember that *siubhal* means "journey" and was originally used, not for a variation type, but for the whole sequence of variations between each restatement of the *urlar*.

In "Left Hand", the second half of the *urlar* is one phrase longer than the first. This leads naturally into an inversion of As and Bs in the variations:

abA abA
baB A B A

becomes

baB baB
abA B A

Here, a structure that is spontaneous and unique in the *urlar* becomes more conventional in the variations.

This spirit of transformation is essential to pibroch—as is extending the second half of the *urlar* (see Example 13). Both are authentic features that combine in "Left Hand" to produce excellent music. To rebuild the *urlar* so that the variations adhere to it superficially is to miss the point. It is time we assigned the original composers and early transcribers greater trust. It only takes a glance at the most famous variation sets of Western music to realize that turning the theme upside down, back to front—in fact, making the relationship between theme and variation as obscure as possible—is not only standard practice, but the hallmark of a great composer.

FREE LYRICAL

**A B A B
C D E F**

In the Free Lyrical family of works, the wings of creativity spread and fly, unfettered by geometrical repeated patterns. The Free Lyrical design can be defined very simply: the first quarter is more or less repeated, and the second half does something different. "Lament for Ronald MacDonald of Morar" (Example 13) is a fine example. Others include "Lament for Alasdair Dearg" (14:476), "The Sister's Lament" (4:109), "Lament for the Laird of Anapool" (9:276), and "Lament for Red Hector"(4:111).

WOVEN

**B B A B
A A B A**

Finally, the design that matters most in pibroch. It is labelled "Primary" in *The Kilberry Book*, but I prefer to call it "Woven," as this draws attention to the symmetrical pattern of As and Bs, inverted in each half like two passes of weft on a weaving loom. I challenge anyone to play Example 14b, and not come away questioning the validity of 6,6,4 line arrangements. When rearranged as 4,4,4,4, the correspondence with *brit odidog* (Example 14c) is striking. Although *brit odidog* was studied by Welsh musicians, not Highland pipers, it is contemporary with pibroch's sunrise period, and corroborates our earliest glimpse of pibroch theory: Joseph MacDonald's statement that a regular *urlar* "commonly consisted of 4 Quarters."

Brit odidog is one of the 24 "approved" designs in which Welsh music students were examined. Sixteenth-century manuscripts tell us that they were used to compose, memorize, and appreciate music. In other words, they correspond precisely with the spirit of these pibroch designs. I would suggest that the MacCrimmons taught something equivalent, perhaps even writing down patterns of "1"s and "0"s like

the Welsh. Paper does not last long in the damp West of Scotland, yet two documents from Skye survive, dated 1770 and 1783, beautifully signed by one "Malcolm MacCrimmon" (*Piping Times* 46, No.11 & 47, No.1). A pen is not required, however, and I believe a more effective teaching method, then and now, would be to arrange four smooth white pebbles and four rough black stones on a table (or any objects of similar size): the four smooth objects represent a consonant phrase, the four rough objects a dissonant one. And they can be inverted, because in pibroch it is acceptable to start or end on a dissonance—something which does not appear to have been the case in Wales or in medieval Ireland, and is certainly not the case in urban-Western music.

The Well-woven and Lyrical Well-woven designs are really branches of the Woven musical tribe—the most powerful in pibroch. Some form of Woven design is found in over 150 pibrochs. One of the most popular works with a basic Woven design (as defined above) is "The Earl of Seaforth's Salute" (Example 15). Beside "The End of the Little Bridge", this shows just how different two manifestations of one design can be. Other examples include "MacCrimmon's Sweetheart" (7:205), "The Blue Ribbon" (5:127), "The Red Speckled Bull" (4:105), and "The Big Spree" (1:11).

CONCLUSION

My voyage through the primary sources, back to the composer's world, has been hugely enjoyable. I have not seen everything, however, and I hope the pibroch galaxy will be charted more thoroughly in the future. It is vital to remember that the nine design families I have named, like constellations, do not really exist. They are just a perception, a human convenience. Their number and make-up are not absolute. I have altered the chart originally drawn up by General Thomason and revised by Archibald Campbell as little as possible. Nevertheless, it is necessary to shake what has become orthodoxy

EXAMPLE 13. Free Lyrical design—"Lament for Ronald MacDonald of Morar". *In all Lyrical works, the first two Quarters, **AB**, are more or less identical. In the second half of Free Lyrical works, the composer's imagination has free reign. Here, a falling sequence, E_1 E_2 E_3, extends the final Quarter magnificently, producing a unique structure with the proportions 4,4,4,7. It is quite normal for the second half of an urlar to be longer or shorter than the first. This kind of flexibility is a musical asset and an authentic Highland manner of melodic expression (Donald MacDonald,* Ancient Marshall Music of Caledonia*, c.1819, p.94).*

in order to include the whole "Mac-Crimmon" repertoire, and not merely the sanitized portion approved by two individuals in the twentieth century.

Every category of pibroch design has hazy edges. By viewing 6,6,4 and 4,6,4,2 tunes as variants of the 4,4,4,4 pattern with an uneven phrase structure superimposed, I avoid the inelegance of theoretical boundaries, sharp dividing lines that do not exist in the real world. Among the nine design families illustrated, promiscuity was rife; it would be equally true to call this one family, or fifty—but it would be rather less useful in the classroom. I beg all teachers to sell this theory with a caveat: being real music, pibroch doesn't follow rules, it makes them. Creative genius is the only

rule here, as dull music does not survive in oral transmission.

As in the craft of professional Gaelic poetry, pibroch composers used phrase repetition to weave musical lines together in an intricate manner, and in all but a handful of cases, this dispels any "amateur" fourfold feeling. Regular end-rhyme was avoided; instead, motifs at line ends would be echoed in midline, and phrases were often shifted to new positions so that the metrical emphasis would fall differently the second time. In longer Woven movements, a superimposed 6,6,4 pattern obliterates any feeling of fourfold construction. In short variations, however, and the second half of Ornate movements, a 4,4,4,4 feeling prevails, which makes a

EXAMPLE 14. Woven design—"The End of the Little Bridge"
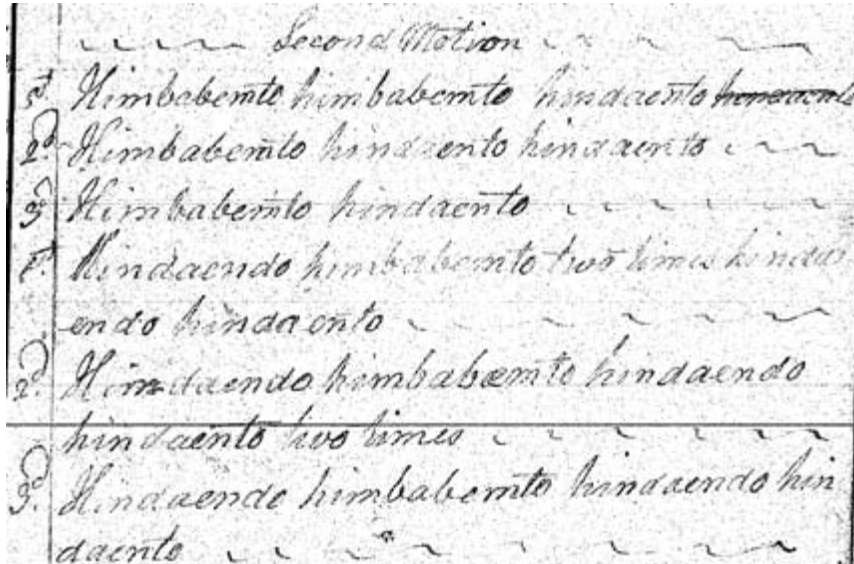
Example 14a. *The first two variations of the Darna Siubhal, "Second Motion" (C.ii.85).*

VAR.1

bbab aaba

Himbabemto himbabemto hinda-ento himbabemto hinda-ento hinda-ento himbabemto hinda-ento

VAR.2

BBAB

Hinda-endo himbabemto hinda-endo himbabemto hinda-endo hinda-ento hinda-endo himbabemto

AABA

hinda-endo hinda-ento hinda-endo hinda-ento hinda-endo himbabemto hinda-endo hinda-ento

Example 14b. *My interpretation of Campbell's canntaireachd notation in Example 14a. Compared to the variations that immediately surround it, the first variation in this example halves the length of each phrase: the Woven design is completed in four bars instead of eight. Short variations like these are easier to perceive in 4,4,4,4 than they are in 6,6,4, and the Welsh* mesur, *"bryt odidog" (Example 14c) provides compelling evidence that this was how the composer conceived them.*
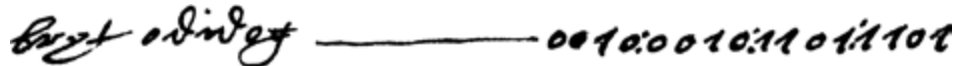
Example 14c. *In the Welsh* mesur *"bryt odidog", double dots divide sixteen digits into four even Quarters. The pattern of sonority in the second and third Quarters equals that of basic Woven movements (like the first variation in Example 14b): 0010 corresponds to* **bbab**, *and 1101 to* **aaba** *(Robert ap Huw's MS, c.1613, p.107).*

clear dividing line between even-lined and uneven-lined designs impossible.

During the Age of Enlightenment, a fashion for much clearer musical phrasing, and the collapse of pibroch as a serious profession, resulted in half the repertoire being thought of in uneven lines. Between the 1790s and 1960s, before Robin Lorimer challenged established wisdom, this was how pibroch was understood by those who wrote it down. The merits of Lorimer's suggestion, however, that all grounds were composed in even lines, are compelling: the ingenious playfulness of the composers becomes more apparent, the myriad interrelationships of design can be seen more clearly, and the symmetrical patterns of interlaced sonorities, which were central to medieval Welsh music theory, render our understanding

EXAMPLE 15. Woven design—"The Earl of Seaforth's Salute". *The two highlighted sections show the link where two **b** phrases are joined to form **B**, and two **a** phrases are joined to form **A**. This link rhymes, and I would argue that in the composer's mind, the first half **Bab** was inverted to create the second half **Aba'**. This urlar is typical in saving a tiny burst of melodic creativity for the final eighth, **a'**. This creates a falling sequence, as in Example 13, but without elongating the second half (Donald MacDonald junior's MS, 1826—original now lost, copied in the Kilberry Papers).*

of pibroch more sophisticated, more Celtic, and more historically-informed.

My primary objective in revising pibroch theory is to put something accurate and sensible into the public domain, an accessible set of concepts that makes pibroch less intimidating, easier to teach, and easier to love. My second objective is to enable the expurgated and rejected works to be seen as law-abiding stars in the pibroch galaxy. Due to a faulty theoretical base, twentieth-century editors failed to appreciate music that was structurally inventive, assigning many settings of superior musical quality either to major surgery, or to an unpublishable heap. What made it into print, sadly, belongs to a lower plane of musical intelligence than that of the composers.

Stripped of its range of characters, freedom of wit, and intensity of Gaelic flavor, the stature and authenticity of the repertoire has been diminished. Since publication began, pibroch has crept into closer resonance with a culture of mass production. The village of pibroch is not like a housing estate built in the 1960s; every work is different, each has a unique charm. Some constructions are grander, some are humbler, but in all of them creativity has been exercised. This is what makes

them pass the ultimate quality control mechanism: oral transmission. Rather than continue debasing our music to fit an imperfect theory, it is time we developed our theory to fit the music better.

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—— (1988) "Lament for the Union", *Piping Times* 50 No.8. *This explains why units of pibroch design should be identified by their underlying tonality, not by surface melody*.
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REFERENCE SYSTEM

(6:178) Piobaireachd Society Book 6, page 178.
(C.ii.34) Colin Campbell's Instrumental Book 1797, volume II, tune no.34.
(K.i.16) Angus MacKay's ms., volume I, page 16.

Born and raised in Glasgow, Barnaby started going to the College of Piping when he was 8. He toured the US with Loretto School Pipes & Drums in 1989, and after a year out in Bulgaria, studied music at Cambridge University. His first job was as a music teacher in Rome. Appointed Composer in Residence, he made instruments and staged musical extravaganzas with 300 children, aged 2-12. He has recorded two CDs of Bulgarian music with Derek Bell of The Chieftains and is the founder of Siubhal.com, a publishing initiative to raise the profile of early Gaelic music. Barnaby is currently re-introducing the triplepipe, an instrument that disappeared from Scotland in the Middle Ages, but which flourishes in Sardinia. He can be contacted at barnaby@pibroch.net