Sweet anticipation: the craft of pibroch

The first part of Barnaby Brown's presentation, introduced by Chris Bacon

Chris: Trying to find the music in old scores is very difficult. The problem that we're facing in all of this, of course, is the passage of time, and what we need is a few people to open a portal. And our first speaker is going to do just that.

Barnaby: Thank you very much indeed. I'm delighted to be part of this broad church of speakers, looking at variations from different cultural perspectives: Northumbrian, Border, Lowland and Highland. There is something about a broad church that I think is most important in this current global climate. We all construct borders – be they political, musical, or stylistic, it's part of the human condition – but the more I look into the evidence, the more I see that borders really are not there. If you look at the music, the very notion that pibroch is Highland, that the 'great pipe' is a Highland thing, these crumble away when you look with an open mind at the actual facts.

So I'd like to set out with the idea – perhaps a heretical one – that our preconceptions, our cultural attachments that we depend on as human beings, are built on sand. When you probe a little more carefully, looking at the things that are difficult about pibroch, homing in on the things that don't make sense, the things that our current conceptions don't fit too well, then you eventually reach the realisation that pibroch is something broader. It was Paul Roberts who alerted me a few years ago, at the First International Bagpipe Day Conference, to evidence for what he calls 'English pibroch'. *Pìobaireachd* just means 'piping' – music-making by pipers. We need to ditch the idea that it's one particular thing. The preconceptions that we project backwards from today blind us to what's there. We need to throw out our current idea of what pibroch is, and treat it as something with porous boundaries; not at all homogenous or 'pure', but mixed-race; woven into the fabric of other traditions, without borders. That is my starting point today.

The points I will make are very general. I hope they are useful to any musician, but they are specifically aimed at those working with fewer pitches, because that is the area in which pibroch really thrives. On a piano or with an orchestra you don't need to be skilful working with a restricted palette of nine colours. When you have hundreds of pitches to play with, you lose the craft. It is only when your world revolves around nine pitches that you become expert at using them. A lot of

the initial work on pibroch is handicapped by the fact that the notions about music carried over from the education of good musicians for the last two hundred years don't belong to a nine-pitch universe.

I will distinguish between pitches and notes. We are lucky in English to have two words for similar things. A phrase might contain forty *notes* but only six *pitches*, because several of the notes are the same pitch. Pitches are the colours in our palette; notes and grace notes are our brush strokes on the canvas of time.

Looking at the instruments in museums, you realise that there is not a lot of difference between a Highland chanter and a Border or Lowland chanter; nor is there much difference in the drones. The loudness of the old instruments is very similar: they played variations *outdoors*. The cultural context is a little different, the language is different, but the instrument is alarmingly similar. Nationalist walls come tumbling down when you assemble the evidence. There were experiments overblowing to extend the range in the late 17th and early 18th centuries, but in Dixon's time (the 1730s), nine pitches was still the standard across northern Britain.

My talk concerns the craft of creating 'good music' – that's what *ceòl mòr* means. What is good? How do we create good music? I believe similar sorts of things apply to the bagpipe music of England as to the bagpipe music of the Hebrides. Some of it boils down to us being human beings – a common biology

. Other aspects point to a cultural relationship. But my point today is that many of pibroch's musical behaviours don't belong to the Isle of Skye, or to Mull, or to the Highlands; we find them elsewhere in the evidence of early British piping and harp music, particularly in Wales. Naturally, a border is constructed there too, and we call it Welsh music. But is it? Or does it just happen to survive there? Was it actually British? European? Cosmopolitan?

I don't have answers to these questions, but I hope they are productive and stimulate musical creativity, because that is what this is ultimately about.

There are four principles I am going to talk about today – principles of making 'good music' in a world in which variation is far more nebulous, crafty and skilful than 'theme and variation form'. I'm not a friend of theme and variation form; it tends to produce predictable, boring music. It takes inspiration to overcome rule-based thinking and create something beautiful. Pibroch contains some really rather lovely ways of doing this. I am delighted to share these with you, not only because I am passionate about them, but also because I don't think they were invented by Highland pipers in the Isle of Skye. They received a lot of their ideas from further south. Be it Ireland, England or Spain, the international interactions that pipers had is not a 20th-century phenomenon; there were Iranians in Scotland in the Roman period – what sort of music did they bring? There are Roman finds as far east as China, and Greek or Roman doublepipes found as far afield as Tadjikistan, Sudan, Spain and the Netherlands. Musicians got around.

The four principles I want to explore are *contrast, anticipation, dramatic arcs* and *spirit*. I've chosen these words to capture different ideas, but they are really just four aspects of the same thing, which is *being human*.

Contrast is important within a piece and between pieces. We often forget one or the other, but a skilled composer – or a performer selecting music and developing variations – keeps both in mind. Also operating on two levels, within and between pieces, is **Anticipation**. Repetition builds expectation and when successful pieces are imitated, you end up with a cultural template, a conventional way, known to your audience. You start playing and they can guess what's coming because the process is familiar to them. And therefore you play with that – you either go with it or you go against it. There are different sorts of people who go against convention. They might be your young upstarts who either haven't been educated or just want to be different – defiance is part of our biological programming. But it's not just young people, learners, it's also masters at the end of their careers who feel liberated – they no longer have to do what they're supposed to.

So that's **anticipation**. Your audience may be expecting something, but you do it a little bit differently. My third principle is **dramatic arcs**. The beauty of music is its capacity to bring things out that you can't express in language. All aspects of being human resonate within music, and so what we tend to observe are these shapes, dramatic arcs, that chime with life experience – the most powerful, pleasurable, painful things. You find them at every level of structure. Pibroch is incredible here, a Mandelbrot set where no matter how close you zoom in you see the same sorts of patterns. You might zoom in to the level of a bar – though it wasn't written in bars, so lets call it a 'finger'.

Maybe they did some sort of finger-counting on the left hand – Joseph MacDonald talks about 'fingers' in his *Compleat Theory* (c. 1760). Whether it's a finger, or four fingers, or two parts, or a sequence of twelve parts, every structural level has a shape to it.

You can think of it like climbing a mountain. There's a certain rule, that good shapes are more interesting in the second half. To put it in a nutshell, you don't peak in the first half. It doesn't work like that. If you're climbing a hill, it takes longer to get up than it does to come down. That model is embedded in the phrase, in the half of an *ùrlar*, in the whole of an *ùrlar*, in a pair of variations, in a *siubhal* (a set of up to six variations between repetitions of the *ùrlar*), and in the whole of the *port* (translated as 'tune' but meaning 'pibroch' in this context). At every level of structure, there is a dramatic arc.

And finally my fourth package, **spirit**. What do I mean here? I think of the Latin word *anima* – it's animated, there's something alive in there. It's pushing boundaries. If there's a way of doing it, you're going to push against that. This applies to everything. Let's take mode. We have these preconceptions programmed into us from birth – scales, modes, progressions. We think that's how it is. It's not – everything is up for grabs. When you look at pibroch scales, yes, there are tendencies: you get gatherings of cases that do it in a particular way, popular ways of selecting pitches (lets call them 'tonalities') and popular ways of structuring parts (lets call these 'harmonic cycles'). But if you look between the clusters, you find permutations filling the gaps in a natural, organic way. This is partly to do with oral transmission. If a piece doesn't have something marking it out as different, it's not memorable. It has got to stand out

So spirit, *creative* spirit, is important. It works hand in hand with anticipation: you have the proper way to do it, which the defiant or bored composer plays around with. It's the same in every world-heritage performance culture. Take Persian song, for example:

> *All the meters we named are not used in their "perfect" (*sālem*) form. On the contrary, metres which bear some variations are rather preferred by the Persian poets. The variations called* zehāf *(pl.* zehāfat *"relaxations") are made either 1) by adding an extra "consonant" to the primary poetic foot ...; or 2) by deducting one (or two) consonants from it.*[1]

In other words, rule breaking is good. It avoids predictability and if we didn't do it, *Homo sapiens* would have died out long ago. This is natural selection in action.

Now, lets get down to specifics. This is a participatory talk and I'm going to get you singing. We're going to do the Siubhal Doubling from Colin Campbell's 1797 setting of a tune now known as *Too Long in This Condition* (PS 161). He calls it 'McFarlans Gathering'.

[1] *See 'A map of the pibroch landscape, 1760–1841' in Piping Today 70 (2014), pp. 14–19, and the dataset behind it. Both are available at www.barnabybrown.info/publications.*

Hindodre hindodre

As is typically the case in pibroch, the setting selected by performers over the course of the last two hundred years is the most four-square, law-abiding one. I've suggested in the past that this reflects the zeitgeist. Is it the military, building the British Empire with discipline and conformity? Or is it museum culture, classifying everything? The invention of museums in the middle of the 18th century is part of a wider European momentum to collect and organise complex phenomena – human, animal, butterfly, etc. Or is it the Industrial Revolution, the manufacture of things all looking the same? Whatever it is, thanks to this zeitgeist we've inherited pibrochs in an 'industrial' shape.

It's a different story when you go back to Colin Campbell's manuscript. His *Instrumental Book* of 1797 contains 168 pieces, 164 of which had not been written down before. So this music is falling out of oral transmission for the first time – it's terribly exciting. Now, there's nothing industrial or regimented about Colin Campbell's settings. Yes, they do normally have four or eight phrases, but are these phrases the same length? Absolutely not. *[Barnaby led the audience vocabelising Campbell's Crunnludh Doubling. For an audio recording, visit www.altpibroch.com/mcfarlans gathering-double.]*

1.	11**OO**	Hindodre hindodre **hòdodre hòdodre**	
2.	1**O**11	Hindili hin**dré** hindre hindodre	A
3.	**O**1**O**	**Hòdré** hodre **hòdodre**	**B**
4.	1**O**11	Hindili hin**dré** hindre hindodre	A
5.	**OO**11	**Hòdodre hòdodre** hin**dò**dre hindodre	
6.	**O**1**O**	**Hòdré** hodre **hòdodre**	**B**
7.	1**O**11	Hindili hin**dré** hindre hindodre	A
8.	**O**1**O**	**Hòdré** hodre **hòdodre**	**B**

All my points today can be illustrated using this one little variation.

Tonal contrast

Note how lines 2, 4, and 7 (labelled A) interweave with lines 3, 6 and 8 (labelled **B**). The tonal contrast between them is primarily between two notes. They are palpably contrasting thanks to the drone, which interferes with their sound waves to produce different levels of sensory dissonance. *Hin* has low dissonance, ***Hò*** has high dissonance. I have marked the high-dissonance elements in bold and notated the pattern of dissonance (or 'harmonic cycle') using the binary symbols 1 and **O**. Arranging this pattern in two lines reveals the symmetry between the two halves:

11 **OO** A **B** A
OO 11 **B** A **B**

Colin Campbell doesn't lay it out that way. This kind of binary conceptualisation is found in Welsh music manuscripts from the 1500s. The idea that this geometric visualisation was once part of Hebridean music education was put forward by Roderick Cannon in the 1990s. Many of the Welsh cycles have sections that are equal and opposite, and that's a principle that permeates pibroch. Tonal symmetry is also prominent in the carnival music of Latin America and there are examples in instrumental dance music written down across Europe in the 1500s and early 1600s. A well-known example is *La Cucaracha*. Its harmonic cycle goes like this:

I I I V
V V V I

Such patterns start to arise whenever you have fewer pitches, I think it's simply the result of working with a limited palette. Think of geometrical styles in the visual arts of many cultures. Interlace is not a Celtic phenomenon; across the Roman and Islamic worlds you find lots of interlace, interlocking patterns, symmetrical layouts. Tibet too.

A framework of tonal contrasts is fundamental – it defines the identity of a 'part' or variation. It is like genetics, revealing what tribe it belongs to, but more practically, it allows musicians to collaborate because the model is familiar. Interbreeding between models is normal and natural. This blurring of boundaries might be a headache to a botanist or a musicologist, but to an artist or a composer it is a sign of health.

I prefer to use the word part, because 'variation' is a principle that permeates everything. These are 'parts' of a larger composition and the later parts may not be related to the first; later parts might have completely cut the anchor and sailed away. This is why I don't like the concept of 'theme and variation form'. Pibroch is not theme and variation form. We have to get rid of that 18th century weight hanging over us from another musical culture. Yes, pibroch uses variation principles, but they weave throughout it in much more interesting ways – sophisticated and playful, law-breaking ways. Some of the more rhapsodic compositions survive in oral transmission through the 19th century, but most of them don't.

Fewer pitches

Pibroch composers were skilled craftsmen, delighting in contrast between phrases, between parts, and between pieces. One of the great plagues in the Highland bagpipe world is losing the contrast between pieces because of the influence of mainstream 20th century music. Composers found themselves living in a global village with twelve notes per octave. On an instrument like the bagpipe with only seven notes per octave, you end up using them all. As soon as you use all your

resources, you loose the contrast between pieces. So, the secret of successful bagpipe composition is to use fewer pitches. That way, the next piece or section sounds completely different.

Now, this is definitely not a Scottish Highland phenomenon; English and continental pipers did just the same. Those glorious dances in Sardinia – long variation sets known as a *ballu professionale*. Listen to Luigi Lai spinning out the *iscala*, the traditional melodic milestones recognisable to the dancers – it is phenomenal. He will omit a bunch of pitches for long sections – several minutes at a time – and the launeddas has fewer pitches than we do. That's the thing: you need to hold back, keeping pitches in reserve, three or four if you dare. It takes courage. We don't do it half enough. If you go through books of contemporary tunes – look at them: Arrgh! Another D major hornpipe. Everything ends up in D major.

Cutting loose from this twelve-note system of major and minor keys is essential to getting the best out of the instrument. Of course you can go down the route of adding keys and chromatics and being able to participate with musicians operating in that system. That's what they started doing in the 18th century – adding keys and going up the octave, because they wanted to play the music that was popular. You end up replacing your chanter with a cor anglais and inventing the pastoral pipes and uillean pipes. The result is beautiful, of its time, but it's not what I've been looking at; it's a new direction. I've been looking at music that was in oral transmission for, well, a few pieces since the 1400s but mostly since the 1600s. Pibroch evolved over many generations in a cultural climate that, like Dixon's, was perfectly happy with nine notes. The trick is to be disciplined! Hold back rather than blurt out all you've got; this is how master pipers make a large canvas interesting.

"Arrgh! Another D major hornpipe. Everything ends up in D major"

So, to sum up on tonality: 1) You can add pitches or change the ones you are using, provided you are stingy. 2) You can subtract pitches, removing them one by one. 3) You can change their hierarchy: that's using the same pitches all the way through but subtly changing the hue by adjusting their relative weight. With a four-pitch tune for example (there are 16 pibrochs that stingy!) the phrases are contrasted by emphasising one pitch in one phrase, and another pitch in another phrase. This sort of tonality is vibrant, like a Picasso blue. It really stands out.

Contrast isn't only about tonality, however. Other dimensions of contrast that pibroch craftsmen play with ingeniously are *framework, texture,* and *time*.

[The conclusion of Baranaby's talk will be included in the next issue of Common Stock]