

THE PIPERS'



GATHERING

AUGUST 19-21, 2016 AT WISDOM HOUSE, LITCHFIELD, CONN

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Pipers'
Gathering

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Dear Piping Friends,

Welcome to the 2016 Pipers' Gathering. We're thrilled to offer you a stellar line-up of instructors - we work hard to bring you a consistently interesting mix of folks from North American and across the pond.

You'll hear a lot at this year's Gathering about sustainability, applied in many different ways.

Attending events like ours and playing in your communities sustains a small piping tradition:

- We welcome attendees of all ages who are new to bellows-blown piping. Hopefully this event will inspire you to stick with them, and do your part to sustain the traditional music community in your area in your own unique way!
- We welcome those who are taking a risk and trying something new at any age! Whether you already play one type of "alt" pipes, and are giving another type a try, or are pushing yourself a little outside your comfort zone with new tunes and techniques, you are sustaining the tradition as well.
- We encourage each of you to introduce one new person to the instruments, the music and The Pipers' Gathering - that will make a big difference in sustaining resources like The Gathering for many years to come. There are few other places that has the variety of instructors and vendors in one place at one time.



Volunteer hours sustain The Pipers' Gathering:

- All the organizers of this event are volunteer. We have no paid staff. Sustaining the Pipers' Gathering means thinking about what you can do to help out. We're grateful for help at the event itself, but we have jobs (large and small) that are required throughout the year to keep the event on track.
- The 2016 event was put together by a very small group of folks. Only a larger group, working together, will keep the event sustainable. Please consider stepping up and taking on a job that fits your time and interests. Information will be available throughout the weekend.
- Heartfelt thanks to the 2016 volunteers who went far above and beyond: Steve Bliven for keeping our books in a way that is accurate and clear; Karen Irvine for designing and wrangling the printing of t-shirts; Ralph Loomis for spearheading our new beginners track and giving freely of his time to nurture players; Ron Schlie for sustaining our open mic/attendee performance tradition with our Play Circle; Mary Schlie for help with at the registration table; Vivian Hunter & Christine Eddy for helping us publicize our concerts; Rusty Pfof for help keeping our Facebook feed lively; the Pipers' Gathering board for tasks throughout the year and for being available at the event itself. A particular shout-out to Chris Pinchbeck and Ciro LoPinto, who have put many hours into the event this year, always with humor and grace. You all are truly what keeps us going.

Funds sustain The Pipers' Gathering:

- This year, registration fees will cover approximately 85% of the Gathering budget, including pass-through costs to Wisdom House. The rest comes from 3 important sources:
- Sales of Pipers' Gathering concert tickets and merchandise (including t-shirts, decals & concert recordings)
- Donations from folks like you will make up about 5% of our budget. The Board of Directors wishes to thank all those who have donated for their generous support.
- Grants & sponsorships have been a larger part of The Gathering's budget in the past, and is most important for us to continue sustainably. Finding and applying for grants takes time, and we have been lacking dedicated volunteer energy for this.

Any fiscal support you can offer, by buying our merchandise or making a donation, goes a long way to keeping us around for years to come.

And of course Wisdom House sustains us throughout the weekend with the terrific food and hospitality that is their ministry. We extend our thanks to all of the staff for their dedication and hard work.



Background on the Workshop

“Antique (SSP) Archaeology”

- By Ralph R. Loomis

Strange as it may sound, over time there have been three television shows that can explain a lot about my approach to researching and selecting music for the Scottish Smallpipes.

Thanks to Mike and Frank, hosts of the popular TV show American Pickers, for their concept of using Archaeology in pursuit of old “stuff” to support their commercial business, which is actually called Antique Archaeology. It’s fun watching them dig through old barns, backyards, and collections of all kinds across the country and even overseas looking for “true gold”. The name of their company is a cool concept, and of course is the namesake for the title of this article.

In the UK, Archaeology is also the concept for a popular TV show called Time Team. This show makes use of professional archaeologists, local ‘diggers’, and all the latest technological equipment to discover what might be hiding just under the earth’s surface. This series is hosted by Tony Robinson (of Black Adder fame) that originally aired on the BBC from 1994 to 2014. Considering how much of the world’s history took place in the British Isles, it has to be one the most concentrated areas for archaeological finds and their enthusiastic efforts were rarely disappointed. Sites excavated over the show’s run have ranged in date from the Paleolithic to the Second World War. While it is a serious academic endeavor, the presentation was always done in laymen’s terms.

Connections is a documentary television series with accompanying book written and presented by the science historian James Burk. The series was produced by the BBC and aired in 1978 (UK) and 1979 (US) respectively. I thoroughly enjoyed watching Mr. Burke’s interdisciplinary approach to the history of both science and invention. His enthusiastic presentation and dry humor demonstrated how various discoveries, scientific achievements and world events related to each other, and particularly how ideas influenced each other in ways I might not ever have thought of if I hadn’t seen his show. James Burke was a master at doing this. James Burke is my TV hero.

Long before I had seen any of these television shows, I was strongly influenced by one of my professors from the first year of graduate study in Music Literature. Dr. Verne Thompson

told us “Whenever doing research, it’s best to go directly to the source, i.e. the music itself.” If multiple versions exist, always ascertain and begin with the earliest version. Additionally, he advised us to draw our own conclusions rather than accepting anyone else’s observations about the music, even those of the composer! As musicians, we should learn to trust our own judgements on the merits of the music itself. Look at the music, listen to it, analyze it, and then draw your own conclusions based on your knowledge and experience with it.

OK. So how do I apply this approach to music for Scottish Smallpipes?

I have attempted to find out for my own satisfaction the origins of the so-called “bagpipe” scale. Various observers have applied labels such as Mixolydian on A, or Major scale with a lowered 7th step. These labels, while they may be descriptive, are really applications of names from disciplines outside the bagpipe world and tell us nothing about how the particular collection of pitches and intervals came to be included on our chanters.

To date I have not found a definitive explanation for how this came about, but I have gathered some evidence from several sources (below) that should help to draw a reasonable conclusion.

1. https://en.wikipedia.org/wiki/College_of_Piping
The College of Piping was founded in Glasgow, Scotland, in 1944 by Seumas MacNeill and Thomas Pearston to pass on the art of the Great Highland Bagpipe to all who wanted to learn Scotland’s national instrument.

The College pioneered outreach teaching of the bagpipe when, in the early 1950s, Seumas MacNeill established schools of piping in North America. This undoubtedly led to an upsurge of interest in Scottish bagpiping on that continent and in no small way contributed to the high standard of piping in Canada and the United States currently enjoyed there.

2. <http://www.bagpipesummerschool.com/instructors.html>
In 1996 the author attended The College of Piping Summer School in Carlsbad, California, which is still going strong today. One year earlier, Dugald MacNeill had become an Instructor at the Summer School in Carlsbad, then in 1996 he took over as Principal at the College of Piping in Glasgow as Seamus MacNeill was very ill.

One day that week I found myself walking along the pitch next to Dugald and I just couldn’t resist asking him where the bagpipe scale came from. I made the mistake of us-

ing the word Mixolydian as part of my question and I was not prepared for his response. He said that Mixolydian had nothing to do with it. According to Dugald, the bagpipe scale was the result of combining the three pentatonic scales on G, A, and D. (...So what pitches would this include? How would they resolve to fit onto one chanter?)

Figure (1.)

Pentatonic scales on G (1), on A (2), and on D (3) combined into the bagpipe scale (4).

1.	+	2.	+	3.	=	4.
		A		A	>>	A
G					>>	G
		F#		F#	>>	F#
E		E		E	>>	E
D		D		D	>>	D
		C#			>>	C#
B		B		B	>>	B
A		A		A	>>	A
G					>>	G

Figure (2.)

(5) Different *inversions* of the same pentatonic scale. (on G)

		E	E	
			D	D
		B	B	B
	A	A	A	A
G	G	G	G	G
		E	E	E
		D	D	D
	B	B	B	
	A	A		
	G			

In figure (1.) we can see the spelling of these three pentatonic scales and how they would fit onto a single chanter, which of course what we now have on our standard chanters.

(Interesting question: What notes did chanters play before this consolidation took place?)

In figure (2.) we see how each pentatonic scale can have more

than one form. (Later on, this could help to decide if the tune you are playing is in pentatonic or not, and if so, which one.)

What Dugald said was a great surprise to me. As a student of music since childhood, I have always considered the pentatonic scale to be associated with Oriental music

Question: If this is true, how then did that influence find its way into the world of bagpipes???

Answer: In the inimitable style of James Burke, by a rather *circuitous* route. (Remember that word *circuitous* for later...)

Here are additional sources reviewed for pertinent content...

3. https://en.wikipedia.org/wiki/Pentatonic_scale
Alternative titles: five-note scale; five-tone scale
Pentatonic scale, also called five-note scale or five-tone scale, [is a] musical scale containing five different tones. It is thought that the pentatonic scale represents an early stage of musical development, because it is found, in different forms, in most of the world's music.

Pentatonic scales may have been used in ancient times to tune the Greek kithara (lyre), and some early Gregorian chant incorporated pentatonic melodies. A variety of pentatonic scales occur in the music of Native Americans... as well as in many European folk melodies.)

In Scottish music, the pentatonic scale is very common. Seumas MacNeill suggests that the Great Highland bagpipe scale with its augmented fourth and diminished seventh is "a device to produce as many pentatonic scales as possible from its nine notes".^[22] Roderick Cannon explains these pentatonic scales and their use in more detail, both in *Piobaireachd* and light music.^[23]

Seumas MacNeil and Frank Richardson *Piobaireachd and its Interpretation* (Edinburgh: John Donald Publishers Ltd, 1996): p. 36. ISBN 0-85976-440-0

Jump up^ Roderick D. Cannon *The Highland Bagpipe and its Music* (Edinburgh: John Donald Publishers Ltd, 1995): pp. 36-45. ISBN 0-85976-416-8

(AHA! Seumas MacNeill published this in 1996, the same year Dugald McNeill told me essentially the same thing at the College of Piping Summer School in California).

4. https://en.wikipedia.org/wiki/Music_of_China
Music of China refers to the music of the Chinese people, which may be the music of the Han Chinese as well

as other ethnic minorities within mainland China. It also includes music produced by people of Chinese origin in some territories outside mainland China using traditional Chinese instruments or in the Chinese language. It covers a highly diverse range of music from the traditional to the modern.

Different types of music have been recorded in historical Chinese documents from the early periods of Chinese civilization which, together with archaeological artifacts discovered, provided evidence of a well-developed musical culture as early as the Zhou Dynasty (1122 BC – 256 BC).

History

According to legends, the founder of music in Chinese mythology was Ling Lun at the time of the Yellow Emperor, who made bamboo pipes tuned to the sounds of birds including the phoenix. A twelve-tone musical system was created based on the pitches of the bamboo pipes, and the first of these pipes produced the “yellow bell” (黃鐘) pitch, and set of tune bells were then created from the pipes.^[1]

Early History.

During the Zhou Dynasty, a formal system of court and ceremonial music later termed *yayue* was established. Music in the Zhou Dynasty was conceived as a cosmological manifestation of the sound of nature that is integrated into the binary universal order of yin and yang, and this concept has enduring influence later Chinese thinking on music.^[2] A “correct” music according to Zhou *concept would involve instruments correlating to the five elements of nature and would bring harmony to nature*. Around or before the 7th century BC, a system of pitch generation and pentatonic scale was derived from a *cycle-of-fifths* theory.^[2]

(WOW! Remember that word circuitous I asked you to remember? James Burke, you would be proud of me.)

5. **Harvard Dictionary of Music**, Willi Apel, Harvard University Press, Cambridge, Massachusetts, 1945, p. 302, GREEK MUSIC, History

“Greek culture was not entirely autochthonous and aboriginal, but evolved under the strong influence of Egyptian, Phoenician, and Asiatic cultures.” (One source)

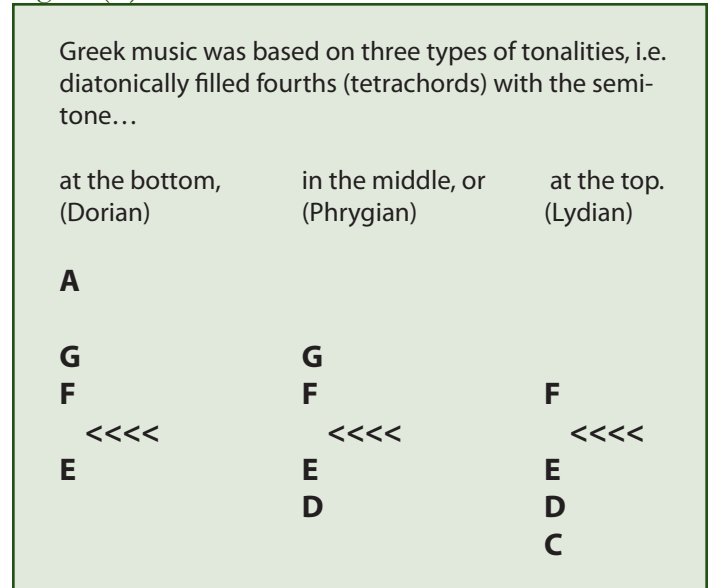
“...suggests the theory that Greek music, too, owed its origin to that of other nations of a more ancient cultural life. Indeed, even the most typically Greek instrument, the kithara, has an Oriental ancestry, to say nothing about the purely oriental Aulos.”

6. **The History of Musical Instruments**, Curt Sachs, W. W. Norton Publishers, New York, 1940, PIPE, p. 139: (In this quote the term pipes refers to the *Aulos*)

“According to ancient writers, the earlier pipes had only four, or even three fingerholes. The bore was narrow enough to exclude the production of fundamentals, so that overblowing meant a jump of only a fifth instead of the usual octave.

Even with more than 4 holes, the pipe was restricted to melodies in one of the three types of tonalities on which Greek music was based - that is, diatonically filled fourths with the semitone at the bottom (Dorian), in the middle (Phrygian), or at the top (Lydian). Only since the fifth century B.C has the number and arrangement of the fingerholes permitted playing in all three of these tonalities.”

Figure (3.)



Note: Readers should be aware that the names Dorian, Phrygian, and Lydian were also used later on in the mid-16th century to identify three of the church modes, but with a different definition in the later context. This could become a possible source of confusion.

So, does this explanation from Curt Sachs about tonalities for the *Aulos* before/after fifth century BC sound anything like what Seumas MacNeill said about the bagpipe scale? Are there any similarities between the Greek tonalities and the (oriental) pentatonic tonalities involved in these two *consolidations*?

Based on these considerations, I have concluded that the bagpipe chanter perhaps is more versatile than we might think. It should not be thought of as being limited to just one scale or one type of scale.

How many scales does our chanter provide for (without any added keys, holes, or tape applied over top portion of tone hole)? My list includes LYDIAN on G, MIXOLYDIAN on A, DORIAN on B, D (major), PENTATONIC on G, PENTATONIC on A, and PENTATONIC on D. Of these, the last three are probably more prevalent in the tunes we play than we realize.

With that in mind, let’s look at the first music example that will be played in the workshop. Of the multiple versions available, this one tells me the most about the evolution of the SSP and its music because 1. It’s the *oldest*, and 2. of all the indicators it contains. (Recordings are available online.)



Figure (4.)

1. Can we see any evidence of a Pentatonic Scale on A [A, B, C#, E, F#]?
2. Can we see any evidence of a Greek Lydian Mode on A [A, B, C#, D]?
3. Can we see any evidence of a Medieval Lydian Mode on G [G, A, B, C#, D, E, F#, G]?
4. Can we see any evidence of a Major Scale on A [A, B, C#, D, E, F#, G#, A]?
5. Can we see any evidence of a Major Scale on D [D, E, F#, G, A, B, C#, D]?
6. Are we able to settle on any single tonality overall, for the whole tune?

1. Greek LYDIAN MODE on A	2. Greek LYDIAN MODE on G	3. Greek LYDIAN MODE as defined in Greater Perfect System	4. Contemporary MAJOR SCALE on C
A	G	C	C
<<<<	<<<<	<<<<	<<<<
(G#)	(F#)	B	B
(F#)	(E)	A	A
E	D	G	G
D	C#	F	F
<<<<	<<<<	<<<<	<<<<
C#	B	E	E
(B)	(A)	D	D
A	G	C	C

Bracket indicates primary tetrachord.
 Parentheses indicate note missing from Tiribus
 Pointers indicate location of semitones (half-steps)

We will only have to analyze the first two measures because every other two-measure pairing follows a similar pattern.

In Both measures, the melodic range is limited to the interval of a *fifth*.

In the First measure, all of the tune notes are found in the A Major scale, the Medieval *Ionian* Mode on A, and the Greek *Lydian* mode on A as extrapolated out to the octave.

In the Second measure, all of the tune notes are found in either the D Major scale or the Medieval *Lydian* mode on G.

AHA!

The cat's out of the bag! The Major Scale is exactly the same by definition as the Greek Lydian Mode.

Does this mean our Major Scale is derived from the Greek Lydian Mode?

From several perspectives, a strong case might be made.

What do you think?

Can we draw conclusions from this about the age of **Tiribus**?

While some clues lead us to consider Pentatonic scales in **Tiribus**, we might also conclude that either *A Major* and *D Major*, or Greek *Lydian* on A and on D are the primary scales used. This association between music in the 7th century BC and the 21st and 6th centuries AD is a real curiosity. The presence of a semitone (half-step) at the top of the tetrachord (see Figure 3.) is a dead giveaway for the Greek *LYDIAN MODE*. Also, the semitone does not exist in a *pentatonic scale*. The real *miscue* in Tiribus is the *apparent* root movement between A and G leading us away from the *possible* A and D. An interesting alternative would be if the C# in the 2nd measure were a C natural, allowing for A and G scales instead. Most of our chanters, however, are not able to do both in the same tune.

In all fairness, our link with Greek Music needs to be explained further. In Figure (4.) we see a comparison of the full spelling of the two Greek *LYDIAN MODES* found in Tiribus along with the default Greek *LYDIAN Mode* and a contemporary *MAJOR SCALE*. What do we see in terms of their definitions (location of semitones in the tetrachord)?

*After looking at the sources,
then at the music itself,
what can we NOW say?*

A “correct” music according to the Zhou concept would involve instruments correlating to the five elements of nature and would bring harmony to nature.

Around or before the 7th century BC, a system of pitch generation and the pentatonic scale was derived from a cycle-of-fifths theory. Greek culture was not entirely autochthonous and aboriginal, but evolved under the strong influence of Egyptian, Phoenician, and Asiatic cultures.”



Tips for a New Scottish Smallpipe Owner

- by Chris Pinchbeck

Are you petrified to touch your reeds? Scared you might crunch an expensive Smallpipe chanter reed? Maybe – but you’re also not able to play because the darned thing isn’t working the way it should, right? Welcome to piping! Can’t make your drones sound good? Having a hard time getting bellows technique down? Here are some general tips that may help the process become more natural.

First, a few words about the smallpipes. As with anything, properly maintaining the set overall goes a long way in keeping them running efficiently. Here’s the preflight checklist you might choose to perform every so often:

- Are all the hemp joints snug but not too tight? (You’re not using Teflon tape on those joints are you???) Best to use a lightly bees

“Indeed, even the most typically Greek instrument, the kithara, has an Oriental ancestry, to say nothing about the purely oriental *Aulos*.”

Even with more than 4 holes, the pipe was restricted to melodies in one of the three types of tonalities on which Greek music was based - that is, diatonically filled fourths with the semitone at the bottom (Dorian), in the middle (Phrygian), or at the top (Lydian). Only since the fifth century B.C has the number and arrangement of the fingerholes permitted playing in all three of these tonalities.”

In Scottish music, the pentatonic scale is very common. Seumas MacNeill suggests that the Great Highland bagpipe scale with its augmented fourth and diminished seventh is “a device to produce as many pentatonic scales as possible from its nine notes”. The bagpipe chanter is perhaps more versatile than we might think. It should not be thought of as being limited to just one scale or one type of scale.

The definitions of the Greek *LYDIAN MODE* (from the Octave Series as found in *The Greater Perfect System* of ca. 500 AD and the contemporary *MAJOR* scale are *exactly the same*.

Tiribus uses either two Major scales, two Greek Lydian Modes, or two Pentatonic Scales. The strongest characteristic is that it never really settles on one tonal center or another, rather it spends equal time alternating regularly from one to the other. So **Tiribus** has two tonal centers but no single tonality. Hmm... how many times have you seen that? What does it tell you about its age?

Look at the music, listen to it, analyze it, and then draw your own conclusions based on your own knowledge and experience with it.

RRL
July 30, 2016

P.S. (See also Bob Dunsire Forum online for more discussion about Tiribus and some of its characteristics)



waxed (lightly) thin cotton thread for your joint maintenance. There are variations from waxed silk thread to braided wax hemp.....but good old cotton thread generally will do nicely.

- Do we have any leaks?

Check the bellows. Unplug the bellows and stick your finger in the port, take a breath with the bellows and squeeze down with your arm as you would be playing the set, but now “plugged” via your finger from losing air. If the bellow paddles continue to depress, you more than likely have a leak. They should stay firm to somewhat firmly in place. The best bellows sit there dead still without losing any air.

Check the drones: Stop the tops of all drones with either pins or blue tack poster putty. Pull the split stock (not exposing the reed)

Figure 1



reed body – hence the sound produced.

When an adjustment made, sacrifices are made. (Bridle movements should not be

of the chanter out of the bag and stick your thumb or a properly sized cork in that port tightly. Then, connect the bag to the bellows and blow up the system. If you have leaks in the common stock you'll usually hear a hiss. If you can't hear any air escaping any of your drone tenons, but the bag slowly deflates, it may be a sign of air being lost through the bag itself or one of the tie ins. The bag should stay nice and firm. If the bag is leaking – time to call your friendly pipe maker.

Having a set of pipes with little to no leaks helps us tremendously in allowing playing pressure and bellows pace to be comfortable. It's simple maintenance that goes a LONG way toward your path to stardom. And yes, we all get lazy about it and sick of hearing others tell us how important pipe maintenance is....but.....

Once a year or so, you might consider giving your instrument a light oiling inside and out. Bore oil or nut based oils (like Almond and Walnut) are generally used. Light is the key. They don't need much, but they do need some on occasion. Pipe cleaners work well enough in the bores but be sure to look through the bore as once in a while, they'll leave some hairy residue behind. Shiny bores = crisp tone. Never use a petroleum based oil or vegetable based oils.

Reeds

Now onto reeds. Adjusting either your drone or chanter reeds doesn't need to be a scary prospect. Yes, we need to be careful lest we make an expensive mistake, but learning how to make minor adjustments on your reeds and learning why or why not things are acting they way they should or shouldn't is an important aspect of owning a quality set of Scottish Smallpipes.

Making adjustments from time to time and performing routine maintenance is essential in keeping your instrument efficient and playing well. The more you do it, the more confident you become and the better you can maintain and achieve great sound.

The approach for all reed adjustments is this: Gentle. Small adjustments to work toward desired affect vs chasing big adjustments back and forth. Pilot oscillations kill. Easy does it Tiger, whoa Nelly, 'I must remember these are not big pipes' ...however you want to keep the reins in on wild adjustments, do so. One step at a time: patience and gentle wins the game. **Figure 2**

The Drone Reeds

The drone reeds are typically quite stable, but once in a while things need tweaking. The drone reed's essence is a body, a single blade that vibrates and a bridle that controls a few things including efficiency, power and tone quality. When air is introduced, the blade jumps up and down against the

seen as a couple millimeters, but more like a 10th of a millimeter at a time – yes, tiny miniscule adjustments!)

Here's the general equation:

As the bridle is moved back as to lengthen the blade:

Playing pressure gets harder to shut the reed off (i.e. the reed allows more air through) Reed will be progressively more raucous sounding. Reed will progressively flatten in pitch.

As the bridle is moved forward as to shorten the blade:

Playing pressure will decrease and sometimes shut the reed completely with very little pressure. Reed will be progressively thinner sounding. Reed will progressively sharpen in pitch.

We're striving for the reed to play well and not shut down during blowing inconsistency, yet not be so open as to take too much air and sounding raucous. As well, we're looking for pitch of the reed to perform so that the drone tuning pin up on the drone is in a nice position. Too long way up on the hemp generally degrades the drone sound and too far engulfing the pin and the drone will typically start sounding strange as well. Shoot for the middle of the pin and modify from there as a general rule.

Sometimes a drone reed closes up even with the bridle all the way back. This may call for a little more aggressive action in physically pulling the end of the reed blade up to guide it into a gentle "curl" so that it naturally sits just off the base of the reed body. If this is too scary, sometimes running a piece of your hair between reed blade and body, nestled back to the bridle is enough to get the blade to rise up off the reed body enough.

Some modern reeds have screw adjustments at the end. Screw in = reed shortens and thus sharpens. Screw out = reed lengthens and thus flattens. These screws are great for fine tuning for just the right tone and drone tuning pin placement.

Know where your actual drone sounds best and is most stable on the tuning pin. For instance, if your drone top is all the way down the tuning pin – odds are your sound isn't as stable our sweet as it could be and thus your drone reed would need to be slightly sharpened to allow the drone top to be further out on the tuning pin. The opposite is more than likely true on the other end of the spectrum.

But, every drone does have a sweet spot and it's not always in the middle – or as in the big pipe world on the tenors

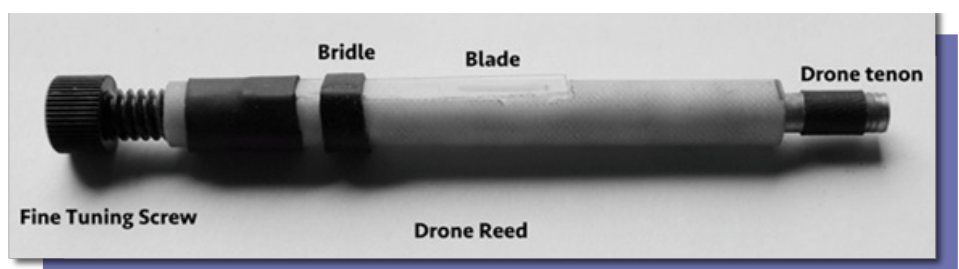


Figure 3

where just a little bit of hemp shows, etc. Work to find where each drone provides lovely tone and stability.

Chanter Reed

Now the dreaded chanter reed! Tuning tips here simplified to their bare minimum but enough to generally keep things running well.

Don't be scared – but do be careful. Remember – gentle – easy does it and all should go well.

We're assuming a chanter in the key of A here. If you have another key – simply supplant that key name with A and the same applies.

Generally speaking – we'll want to "futz" with our chanter reed as little as possible. But occasionally you might need to work your reed somewhat for a better sound.

Some general tips:

Never touch the end of the blades (the very tips) of the reed with your hands or mouth.

I repeat: Never put the

chanter reed in your mouth or mouth blow the chanter – even if your mouth doesn't touch the reed. Your hot breath can kill the reed. You might see a maker do it on RARE occasion, but typically it's for good reason.

Again, every adjustment achieves something and generally sacrifices something as well. Finding the sweet spot is the key here obviously:

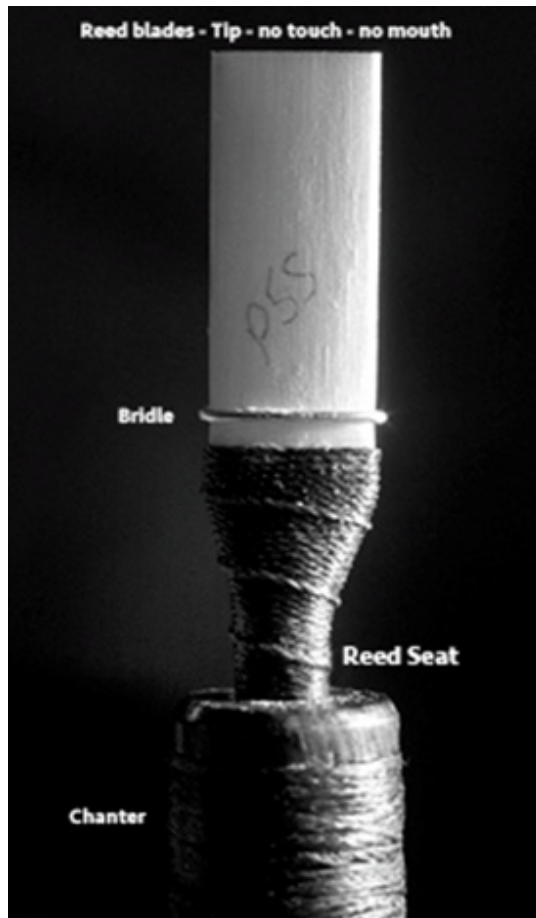
Inserting the reed further into the reed seat – shortens the chanter – and thus sharpens the tone, incrementally, more so on the top hand notes than the bottom hand.

Pulling the reed out of the reed seat (make sure the reed is still firmly seated with additional hemp so that it won't fall out or leak precious air), will lengthen the chanter and thus flatten the pitch. Again, more so on the top hand notes than the bottom.

Gently squeezing on the bridle – so as to pinch the oval together (the metal wrap) will work to quiet the reed, sharpen the pitch, allow it to use less air, become more muted in sound. See Figure 4.

Gently squeezing the bridle on opposing ends to as to open the oval by pinching will work to make the reed louder, flatten the pitch, will use more air, become brighter or sometimes raspier in sound. See Figure 5.

Small movements with a SSP reed go a long way in changing the sound and all too often when we come at adjusting like a 900lb gorilla, is when we get frustrated and give reed maintenance an



unnecessarily frightening reputation. Lightly swims the swan.

Once a true octave has been established – individual notes can be altered using tape on the top side of the note (automotive pin stripping tape is a great source as electrical tape leaves a residue, scotch tape is hard to remove, masking tape is just ugly, etc.) – to flatten the note. As a maker we typically rim the note hole with Elmer's glue. It dries almost clear and creates the same flattening affect as tape – but is more permanent.

For sharpening the note, as a maker we typically use a dremel tool to undercut the interior top of the note hole. This is probably best left for someone with experience in the process to know the proper amounts, techniques and proper dremel bits to use, but it may be necessary if your note is too flat and doesn't have tape or glue.

If you're playing solo – we might not care if the instrument is truly at concert pitch or not - BUT – we do care if the octave is in tune with itself and the drones

sound good with the notes.

The best advice I was given in piping was via Scott MacCauley, a great Highland Piper out of Prince Edward Island. He said, "Play Figure 4



to your drones." In other words, we use the drone sound as our foundation and adjust our playing pressure to it or them. If we over or under blow our chanter – or our blowing technique is unsteady - we'll hear the pitch change against the drone. If you don't play at least one drone when you're beginning, you'll have no foundation from which to base whether or not you're playing sharp or flat – steady or unsteady. Play to your drone. It's WHY we play

Figure 5



bagpipes anyway isn't it??

Bellows Tips

Learning to supply your pipes with the proper and consistent pressure is like learning to ride a bike while chewing gum, talking on the your cell phone and watching for traffic all at the same time. It takes time and patience. (I'm not condoning working out your cell phone in traffic skills!).

Whenever you can, watch good players and their technique.

Generally they:

Use their entire bellows capacity for each stroke of air – big – slow strokes – all the way open – all the way closed.

Keep their bag arm tight on the bag (and their bag nice and full of air – tight) – but compensate gently as their bellows arm is working the bellows. You can barely see that are move on the best of the best.

Steady – easy – gentle. No chicken wings, not a lot of body movement, etc. They look graceful, have good upright posture, don't move all that much and are artistic to watch. Be mindful of this as you practice your technique as it goes a long way in making quicker strides toward nice consistent blowing technique.

Body position is important. You want good posture – yet comfort – you want to sit such that your shoulders are straight and your arms are in natural positions.

The bag should be snug between your armpit and arm. It's vital that the tension in your bag arm doesn't translate to tension on your top hand. A bag held too low in the are often constricts fluid top hand technique.

Be mindful that your hands stay relaxed and light on the chanter. With a light touch, you can feel a "buzz" under your fingers at the note holes. Work to produce that lightness when you practice as it will help you stay conscious of keep your hands relaxed and light on the chanter.

The bellows should be strapped on as high as possibly comfortable, typically just at your sternum under your breasts. Arm strap should be right above your elbow and below your bicep. (Don't use Uilleann pipe style bag and bellows positioning as modeling for Smallpipes – two different beasts) I like snug fits for the belts, but some prefer not as snug. The more snug – the less movement of the system – the easier it will be to learn the process of keeping your pipes sounding steady. Start out tight and as you build confidence, you can let things be more comfortable.

These tips are obviously the tip (no pun intended) of the iceberg, but they may act to quell any anxiety around typical reed adjustments and bellows pitfalls. We do need to adjust reeds. It's the nature of the instrument. So having a healthy respect to tread lightly – but tread confidently in learning and maintaining great sound is essential to enjoying a lovely set of pipes.

Chris Pinchbeck

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The William Davidson (Glenesk) Pipes

- by Ian Kinnear

I have been working as a professional smallpipe maker for over 20 years and have been located in Edzell in the North East of Scotland since 2006. I am aware of a rich history of bellows piping in this part of Scotland and have been lucky to work on a number of old original sets from this area over the years. However, nothing quite prepared me for the Davidson sets which turned up in Glenesk a few years ago. This article is about how they came to my attention, their provenance and what I feel is their significance. As a pipe maker I am interested in them from an organological perspective – what we can learn from them about the instruments and making of that period. Having recently completed an MLitt in ethnology I am interested in how they can also give an insight into how instruments develop in response to changing fashions and how and why they may fall out of and come back into use. I am interested in how a constantly changing cultural landscape can present new contexts and functions for instruments which became irrelevant several generations ago.

It was a few years ago, after piping at the Tarfside Highland Games in Glenesk, that Angus Davidson first mentioned his grandfather's pipes to me. Angus, now in his eighties and a lifelong resident in Glenesk, told me that although his father was a fiddler his grandfather had been a piper. My interest was awakened when Angus told me the pipes his grandfather had played were not like my Highland pipes but had some bent bits of metal tube....and he still had them in the attic somewhere! A few months later Angus appeared at my workshop with a polythene sack containing his grandfather William Davidson's pipes. When I opened the unceremonious packaging I found it contained parts of 2 sets of pipes – a set of border/reel/ lowland pipe drones (2 tenors and a bass) complete and still reeded and a set of pastoral pipes which were in quite poor order and missing the tenor drone. Both sets are made in laburnum with bone mounts suggesting they are somewhat older than the 19th century era when William Davidson would have played them. I assembled the bass drone on the lowland set and, observing they were still reeded but not wanting to remove the drones which were seized in the stock, I cautiously blew through



Glenesk lowland pipe drones

the stock. A comic book puff of dust came out of the drones followed by a rich raspy drone sound as they kicked into life. I tuned the bass to the tenors and they locked into a pretty solid tone very close to A 440. I was amazed! Over 100 years in an attic and these drones, with cane reeds which I could see were not in the best of order, tuned straight out of the “box”! They produce a bit more volume than is currently fashionable with borders pipes and this is probably largely due to the wide diameter of the reeds. The bass is 12.5mm in diameter and the tenors 9mm and they have been tapered quite a bit to fit the reed seats. They appear to be made in cane although I don't think it is *Arundo Donax* and there has been substantial shaving of the tongues to make them work at a comfortable pressure.

Although the pastoral set are not in a playing condition they are extremely well made and look to have been a good instrument in their day. They are a simple instrument with no regulators or chanter keys. This along with their construction in laburnum and bone would suggest they are a quite early set surviving in use into the late 19th century. The drone tops are similar to the lotus style common on Hugh Robertson sets but unfortunately there is no sign of a maker's mark. The chanter is in the baroque oboe style that we see on many pastoral sets with double bulb at the neck and a detachable

foot join with one tone hole. The ferrules are hand rolled tapered ferrules in brass and the tubes have also been rolled out of sheet and formed into a lovely curve which have fitted end caps to fit over the wooden joints to which they connect to save any danger of splitting. As is common with pastoral sets the bass drone is linked through the top of the stock which is a neat solution removing the need for a second bend and keeping the drone compact. Unfortunately, there has been some warping of the wooden parts in the bass drone and more significantly the chanter. The chanter 12" in length and 17 1/2" with the foot joint. The bore looks to be a straight taper between 3/16 and 7/16. I would say from the chanter size and testing reeds in the drones that this set would have played close to Eb.

Although not the best surviving examples of borders or pastoral pipes for me one of the most interesting things about these 2 sets of pipes is their provenance. Many old sets of pipes appear in auctions or car boot sales and while they are interesting in themselves they have no back story. With William Davidson's pipes I was able to speak with his grandson Angus to find out something about the man and musician. William Davidson was born in Glenesk in 1836 and died in 1904 So roughly speaking he would have been of an age to play these pipes between 1850 and 1900 which is quite late for bellows piping (particularly pastoral piping) in Scotland and would lend weight to the idea that



Drone Tops



Drone Reeds

the north east was one of the areas of Scotland where bellows piping survived longest. There are a couple of interesting sets of pastoral and union pipes in the National collection of the Museum of Scotland which have strong links to the North East. One set was bought at auction alongside manuscript with a name and address for William Mackie in Aberdeen as well as correspondence with makers in Dublin about maintenance. This correspondence would suggest that this set was still being played in the late 1880's but that local makers with the expertise to maintain them were hard to find. There is also the wonderful blackwood and silver set presentation set of Union pipes which were gifted to Montrose piper Robert Millar in 1830. These also came with a collection of music which give a great insight into the repertoire of that era. Although William Davidson's sets are more simple and not in as good condition, viewed alongside sets with similar provenance like the Miller set and the Mackie set, oral testimony of Francis Markie playing at fairs into early 20th century and with knowledge of 5 bellows pipe makers in Aberdeen (Naughtan, Davidson, Massie, Mark and Sharp) operating until the mid- 19th century these Davidson pipes provide another piece in the jigsaw which help build a more accurate picture of bellows piping in the North East of Scotland. It is great to be able to put a pin in the map in Glenesk and say that in the 19th century bellows pipes were played in this community. For me as a pipe maker making bellows pipes 15 miles away at the foot of the Glen it was the equivalent of a paleontologist finding a dinosaur skeleton in his back yard!



Glenesk pastoral drone tops & bass drone bend

Although quite remote now, and with a road that is a dead end, in the 19th century Tarfside would have been a vibrant rural community on a drove road that linked farmers in Deeside with livestock markets in Angus, like Trinity outside Brechin. Within this community William, whose mother's family can be traced back to 1768 in the Glen although his

father came from Deeside, worked as a joiner and undertaker. He was born, lived all his life and ran his business from the family homestead at Dykeneuk, north of Tarfside. He had eight children including James, Angus' father who carried on the joinery business and was also a musician being well known as a fiddle player in the Glen.

Angus told me "Father and Geordie Skene (Alastair Skene's uncle) and my Aunt was very good at the piano and they used to belt away night after night at dances and things like that". Although he never met his grandfather he remembers the pipes being in the house and his father talked of grandfather William playing them. "As far about the pipes...they were always in a drawer. That was the bits that you saw. That's all I've ever seen of them. I think there was a wee bit of the bag or cloth but that's all I've ever seen of them. My father used to tell me that my grandfather used to strap on the bellows and play the things. I don't know if he was ever any good at it or anything, Dad used to say that he used to play them".

When I visited Angus to find out more about the pipes and his grandfather he said he had come across another piece that used to be kept with them and after a bit of rummaging produced a lovely boxwood flute in F. It is stamped Beckett Wood and Ivy, London who were making baroque style flutes in the 19th century. Angus also talked about a smaller ebony instrument which sounded like a piccolo size but he thinks was blown like a whistle rather than a flute. This was given to a niece some years ago. I was interested in the idea that in the second half of the 19th century in the north east of Scotland William Davidson may have been playing 2 different types of bellows pipes which potentially required different fingerings as well as flutes and whistles but not highland pipes. All these instruments are designed as ensemble instruments and their function in a rural setting like Tarfside would probably have been playing with other instruments such as piano and fiddle for dancing. The pastoral set in particular provide an important link between bellows pipes which had existed for several hundred years in Scotland and the modern uilleann pipes. When I grew up and learnt pipes in the 1970's and 80's the only instrument you would expect to find in your pipe case would be highland pipes. This has largely changed and many of the younger generation of pipers also play bellows pipes, whistles and flutes and there is an increasing interest amongst Scottish pipers in uilleann (and pastoral) pipes. It is fascinating to think that the contents of William Davidson's pipe case in the 19th Century so closely resembles that of a modern-day piper given that this was not the case for 100 years. What these instruments reflect is



Glenesk pastoral drones & chanter

a desire to play with other musicians and for pipes and pipers to be an integrated part of our musical culture.

These 2 sets of pipes also provide a reminder of how instruments' fortunes are often linked to fashion. Although we think of these instruments as "traditional" (i.e. rooted in the past) so much of their history and development has been about embracing contemporary ideas from out with. Pastoral pipes are a great example of how, as people moved from rural areas into the cities during periods of industrialization, they wanted an instrument to play in drawing rooms and theatres that could recreate some essence or romantic version of their pastoral roots. For indoor and non - dance settings they were looking for an ensemble instrument which was quieter than the lowland pipe and more versatile to blend with piano, cello and violin. The pastoral pipe that evolved in the 18th century is a fusion of traditional and contemporary ideas from continental Europe, Britain and Ireland. By combining European ideas in the form of the baroque oboe with something similar to bellows blown lowland or smallpipe drones the pastoral pipe was developed and produced by makers in Edinburgh, London, Dublin and Aberdeen. Their market was probably gentleman pipers and the contexts where they would have been played urban high society drawing rooms and theatres as well as grand country houses. In this respect William Davidson's pastoral set were probably played out of the normal context for these instruments. More in the rustic rural setting itself than the romantic version of it these instruments had been developed to recreate. However, as in Ireland, the prevalence of large country houses and castles in Aberdeenshire, Angus and the Mearns may have provided a suitable context for these types of pipes to stay relevant for longer than in other parts of Scotland. Ultimately their popularity in Scotland was to be fairly short lived as the Highland pipes gained dominance through the military and in the 1870's the accordion arrived from Europe and started to replace the bellows pipes as one of the instruments of choice for dancing.

The development of the pastoral pipes and their subsequent evolution into what we recognise today as the Irish uilleann pipe are a great example of how makers respond to contemporary contexts and changes in function and musical taste. Similarly, I feel the strength of the current resurgence of in-

terest in bellows pipes in Scotland was due to people becoming interested in these instruments again, not to reconstruct a musical idiom from the past, but in response to a desire to facilitate integration of pipes into the modern cultural construct of the folk group. The folk revival had seen the development of performance groups combining singers and instrumentalists playing traditional songs and tunes largely for concert audiences at festival and folk clubs. Although modern amplification allowed the integration of highland pipes into this developing scene, pipers like Jimmy Anderson with Clutha and Rab Wallace with The Whistlebinkies saw the benefits of a quieter, bellows blown bagpipe which could play in more suitable keys for other instruments than the Bb of the Highland Pipes. 30 years on there are any number of groups in Scotland and beyond utilising bellows pipes in this type of setting both for performance groups and dance or ceilidh bands. While the function and contexts may be different from in William Davidson's day the idea of pipes being made and used as ensemble instruments to play with fiddle, flute, piano etc. would be very familiar to him.

It was really a chance conversation that brought William Davidson and his pipes to my attention. But it has made me realize there may be many more similar instruments hidden away in drawers and attics. The survival of these sets is probably partly due to the fact that the Davidson family have stayed in the same community for several generations and also, as Angus remarked, he never throws anything away! Many sets have probably not been so lucky. Largely because these instruments are unidentifiable – certainly without a bag they don't look like what people may have in their mind as a bagpipe – many sets may have been dumped over the years. I hope there are also many waiting to be discovered which will help build the picture of bellows piping in the North East of Scotland and help us understand the demand that sustained a number of bellows pipe makers in Aberdeen into the second half of the 19th century and why this style of pipe may have survived here longer than in other areas of Scotland. It would appear that the furthest William Davidson's pipes travelled since he put them down was when his grandson Angus brought them to my workshop 15 miles down the glen. It was a great thrill to be the first person to hear those lowland pipe drones in over 100yrs. I am now working on a reconstruction of the pastoral set and look forward to playing these in Tarfside to bring the sound of William Davidson's pipes to life once again in Glenesk.

Link to video clips of interview with Angus Davidson, demonstration of lowland drones playing and other photos. www.scottishsmallpipes.com/gleneskpipes



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Meet Your Maker - Kim Bull

By Richard Shuttleworth

Although I have been playing Northumbrian small pipes for over thirty years, I only recently heard the name of Kim Bull. That's what happens when you live three thousand miles away from the center of the universe – Morpeth. When I also learnt that the NSP instructor at this year's Pipers' Gathering, Bill Wakefield, plays a set of pipes made by Kim then I knew I was really behind the times.

It turns out that Kim was born in the south of England, lived in Wales as a teenager but then had the good sense to make Bellingham, Northumberland his home after graduating from university in 1987. There, he runs his own business coaching canoeing and kayaking throughout the year. He is currently 49, married with two daughters aged 9 and 7. His eldest daughter plays fiddle and her sister started on the pipes this year

Kim kindly responded to my email questions about pipe making:

Q: How did you become interested in making Northumbrian small pipes?

A: I'd been playing the pipes for about 14 years and started to make my own drone reeds, and later on my own chanter reeds. Listening to many others who had tried, I expected reed making to be difficult – I always like a challenge. However, I was pleas-

antly surprised with the results I achieved and was quite quickly able to get fairly consistent, good results. Then people started asking if I'd thought about making pipes but I always dismissed the idea.

Jackie Boyce, the great bag maker, had been invited over to run some bag-making workshops for the Northumbrian Pipers' Society. The workshop was great, and I decided that if I could make bags and reeds I should really learn about making a complete set. Fortunately, in Northumberland there are several other pipe makers who are all very willing to share their knowledge. I sought advice from them about tooling up and some of the more specialist processes involved in and then started making sets.

Although I had never made anything like a set of pipes before, I'd learnt how to use lathes and other tools when I was a child in school and at home with my father. I was also used to working with wood and leather as part of my "other" job involves outdoor pursuits and bushcraft skills. Based on the methods and measurements described in Mike Nelson's plans, the first few sets didn't look particularly nice but I was more interested in practicing and experimenting with the processes involved and about whether I could actually make something that sounded like a set of pipes. Satisfied that making pipes was achievable, I set about refining my methods and developing a style, which has proved to be an ongoing process.

Q: What woods do you use and what processes do you follow to make the pipes?

A: My favourite wood is African Blackwood. I buy this as blanks and season them before turning and then boring them to cylinders. Then I leave them to season for a further period before turning each part. Just when I think I have a method sorted I'll think of another way of doing it or get an idea from someone else. I love the openness of most pipe makers and their willingness to share knowledge.

Q: Are there any particular tools you wish to mention?

A: I have an old Boxford lathe and do most of my work on this. A band saw and drill press help, but most of the other work is done using hand tools.

Q: How long does it take to make a standard seven-key set?

A: It would be interesting to start on a Monday morning and see how many days it takes to complete! I haven't done that yet as, although each set is individually made, I might spend a day making a batch of ferrules and the next turning and boring chanter blanks. I did make my first set as a stand-alone set, but of the total time this took about 5% was spent making the pipes and 95% was spent problem solving and head scratching!

Q: Any comments on reed making?

A: I don't think learning how to make reeds is essential for everyone but it is certainly useful! Hopefully, players won't need reeds very often and this could mean that once someone has made a reed their own reed making skills might fade without practice. However, as a player I found I needed to know how to adjust reeds to get the most out of them and for me learning to make reeds took away the risks that adjusting them would have posed if I didn't also know how to make them.

Q: Any last thoughts?

A: Pipe making has become a sort of mental floss for me. I can completely immerse myself and love the fact that I can do things one at a time, slowly, deliberately and completely. I love the rituals involved and the time for reflection on each thing I do.

Anyone wishing to know more about Kim can find him through one of the following ways:

Email: kim@northumbrianpipes.co.uk

Web site: www.NorthumbrianPipes.co.uk

Telephone: 011-44-7980-127832 (from North America)

Facebook: Search "Northumbrian Pipes by Kim Bull" or join the group <https://www.facebook.com/groups/1130454590298160/?fref=ts>

Anyone wishing to see an example of Kim's work should track down Bill Wakefield at the Pipers' Gathering.

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Goodacre's Razor

A CUT BELOW THE OTHERS.

- by Julian Goodacre

Julian Goodacre shares the secret of his favorite tuning tool. What is the wisest course of action if you find that there is one note on your chanter which sounds a wee bit flat? One approach to any problem in life is to ignore it and hope it just goes away. With bagpipes this can lead you into the bad habit of trying to raise the note by squeezing a bit harder which can cause other tuning problems. There are several other ways of dealing with this problem. The wisest initial approach is probably to consult your Venerable Pipemaker, even though it might involve money passing hands. The flat note might be a result of the chanter bore contracting in which case he can re-ream it. Or it could be a peculiarity that your reed has developed, in which case a replacement reed might solve the problem. If you are confident in the bore and the reed there are still other ways of raising the pitch of an individual note. Ideally the hole needs to be repositioned, either slightly higher on the chanter to create a shorter column of vibrating air, which raises the pitch of the note, or lower down to lengthen the column if the note sounds sharp. But this alters the outward appearance of the chanter and is a fairly drastic option that should only be considered in the very last resort. Makers have to do this many, many, times when initially developing, or making improvements to, a design of any type of woodwind instrument in order to arrive at the optimum positions for all the finger holes. Again, this is a job best left to your pipemaker. However there are two less radical ways which achieve the effect of shortening the column of vibrating air, thus raising the pitch of a single note, achievable by any keen 'hands on' piper. One is to increase the diameter of the finger hole. The other technique is to undercut the hole. This involves removing a small piece of wood on the inside of the upper side of the finger hole. (A on Fig 1). It does not affect the outward appearance of the chanter, it is reversible, and I have designed a nifty little tool for this very purpose. Undercutting appears simple, but in practice there remains the problem of swiftly, accurately and neatly removing a small piece of wood at the bottom of the finger hole without damaging its outside appearance. It is especially tricky on my narrow bored Leicestershire smallpipe chanter which has very small finger holes that leave little room to maneuver. I experimented

with various knives for carving and also tried files and Dremel drill, but all were hard to use, inefficient and could easily scuff or damage the visible outside of the fingerhole. Eventually I developed a simple cutting knife shaped somewhat like a crochet hook, which is easy to use, since you put it into the finger hole and pull it towards you at an angle. You can then accurately control how much wood to remove without damaging the surface diameter of the finger hole. I find it an invaluable tool and for reasons that I explain later I have immodestly named it 'Goodacre's Razor'. I make these from roll pins, which are fixing devices used in light machinery to secure metal collars and pulleys onto shafts, and they operate in a similar way as a nail does in wood. They are made from spring steel which is rolled into a tube with the seam left open which allows it some springiness so that it will stay securely in position when it is driven into a slightly undersized hole. They are available in a variety of diameters and I recommend buying the longest ones available. I bought some recently on the ALL-TOOLS- DIY Ebay shop. (Beware! There are also similar roll pins made like little Swiss rolls- these are useless for making a Goodacre's Razor). Even though they are made from hard spring steel it is still possible to file them with fine needle files. To start with you need to remove a triangle (B on Fig 2). when viewed from the side. Then round off some of the back heel (C on Fig 2). You should end up with something that resembles a tubular crochet hook. Now you can get a fine round needle file through the end and file the edge (Fig 2). from inside, so that the bevel of the knife edge is on the inside. Fine honing can be done with a small rolled- up screw of the finest wet and dry paper; mine hardly ever need re-sharpening. Finally a handle is needed. You could just hold one in a pin vice, but it is more satisfactory to turn a nifty handle with the correct diameter hole in it, and epoxy the pin in place. Bingo! I made a series of these knives in different diameters, but in practice I nearly always use my 3/32 inch and 1/8 inch ones. There is a historical reason why I named this tool Goodacre's Razor. Since 1985 I have subscribed to FoMRHI- The Fellowship of Makers and Researchers of Historical Instruments. This admirable organization produces a journal as a forum for all instrument makers to publish and share their researches, tips, theories and anything relating to instrument making. Some of the articles published are very practical whereas others are analytical and theoretical. On a few occasions, debates between rival makers become tedious. About 25 years ago an increasingly heated exchange began between two string instrument makers about some aspect of their own esoteric obsessions. I forget the details; possibly they were clinging to their opposing opinions about the correct catlins for a Spanish vihuela. But I do recall it was the sort of subject liable to make any woodwind instrument maker yawn. The journal is published as a quarterly and it became increasingly frustrating to wait another 4 months to be faced with a further chapter of their disagreements which were of very little interest to most of the members; especially those who, like me, are more drawn to the nuts & bolts & glue type of articles. At some stage one of these spar-

ring makers introduced Occam's Razor to support his personal argument. I had never heard of it, but apparently Occam was a 13th century philosopher who may, or may not, have stated that if there are two solutions to a problem the simplest is correct. This stirred up more hot air articles about the validity of Occam and his wretched Razor I was fed up with all this theoretical clap trap filling up the journal and I cheekily wrote two articles. One was a tongue-in-cheek inquiry asking where I could buy an Occam's razor for scraping bagpipe reeds. The other article was my description of this undercutting tool and how to make it, which I ended by stating 'Make some for yourself and think of Goodacre when you use yours.'

Without one I could not be held responsible for the temper of myself or my chanter's'. I am not advocating that every piper rushes out and makes a Goodacre's Razor. Undercutting is a fairly radical process and this tool is really for an instrument maker or someone who enjoys gaining experience in tuning instruments. It is always best to think long and hard before removing any wood from your valuable chanter even though it is possible to reverse the effects of the process by building up the undercut area again with wax or filler. Hopefully all your chanters are in tune and sounding sweet and you never have need of a Goodacre's Razor!



How does Wood choice affect the Tone of Bagpipes?

- by Nate Banton

And a number of reflections on Pipe Making and Tone

After reeds, wood choice is probably the most talked about tone affecting variable by woodwind musicians and informed listeners. It's fun to think and argue about how wood affects tone. It's a flashy subject. Various woods look and feel very different from one another. It is natural to think that wood's affect on tone would be as different as it's look. But my experience, which is maybe uniquely suited for this discussion having used more than 20 different wood species to make pipes for customers from, suggests that the wood a pipe is made from only indirectly affects tone in a small, but admittedly, audible way.

While I think that my colleagues in the bellowspipe making field would mostly agree with this assessment, as they too have used more timbers to make instruments from than the average clarinet or highland pipe maker would have, there are many musicians who would whole-heartedly disagree. That's fine. That said, I suspect that, in a more meaningful way, they might agree with me more than they realize...

Since most musical instruments these days are pretty standardized, meaning that the differences between one make of clarinet or highland bagpipe, in a broad acoustical physics sort of way, is actually very close to the design of another clarinet or GHB, when musicians talk about one of these instruments having a different tone than another instrument, whether it is due to the design of the instrument or the choice of wood used to make that instrument, they are talking about a very subtle and small change in tone. To their highly trained ears, the difference may be "huge", but a lifetime of only comparing apples to apples will make the difference between apples

seem "huge", even when the differences are actually quite small.

This is all to say that my findings that wood choice makes only a subtle difference in tone, is probably not actually so much a disagreement with these musicians who hear a "huge" difference,

but more a matter of a difference in scale. Life as a small-pipe and Border pipe maker is not about comparing apples to apples. Smallpipes and Border pipes are not standardized anywhere near to the extent that most instruments are standardized. There are many other tone affecting design considerations with pipes which are much less subtle than what wood to use! Reed design and, frankly, quality, is so varied in the smallpipe and Border pipe world, that getting caught up with arguing about what wood is best is really getting the cart before the horse. Border pipe bore design is hugely varied, reed design is varied, hole size is varied, and even the pressure that Border pipes are played at is enormously varied.



African Blackwood

To expand on this idea about the different designs of Scottish bellowspipes for a moment, I want to point out that we are still within the first generation or maybe just starting upon the second generation of modern Border pipe development. What I think many pipers don't realize is that we Border pipe

makers are less rediscovering an old instrument, and more in the middle of inventing a new one -- And much more from whole cloth than we'd maybe like to admit! The historic Border pipe was not an instrument that could sit around in a pub and play in a session with other instruments. It was way too loud for that sort of thing. The modern need for a "Border pipe" that can play nicely with other instruments, essentially filling the same niche in Scottish and Border music as the uilleann pipe does for Irish music, is a brand new one, at least to Border pipes. I think we're probably in the toddler stage of modern Border pipe design right now. We're way ahead of where we were in the 1980's, but I think we

have a ways to go yet. So it is not surprising that pipe makers' designs are so different. We're all doing our best to move a historically outdoor instrument into our parlours and pubs.

And much of this is also true to a lesser extent with smallpipes. There was no A smallpipe chanter that played with what is really a modified Northumbrian pipe style of reed before the 1980's. Let me say that another way: the Scottish smallpipes are really a modern invention. With these we are further along than the Toddler stage since we had so much to draw upon from our Northumbrian cousins, and because of their simpler design, but it's still really only a 35 year old instrument!

So when people get caught up on wood choice with smallpipes and Border pipes, to us living in a world where we are constantly juggling a myriad of other factors which are infinitely more important to tone, it seems a bit silly to argue about. ;)

III. But, yes, I do agree that wood does affect tone. While the difference in sound between woods is fairly subtle, most pipers can hear a difference between the extremes of most "bright" in tone and most "mellow" in tone for wood choices. All else being equal (reeds, bore design, bag shape...) a set made from a wood like African Blackwood would be at one end of the spectrum at most "bright", and a set made from a wood like Plum or Apple would be at the other end at most "mellow". Woods like mesquite, sonokeling, boxwood, poisonwood, hornbeam, and Osage would be middle of the road woods. For the most part, a good rule of thumb is that the denser the wood, the

"brighter" the tone.

My experience using many kinds of wood has taught me that while denser woods tend to make for brighter pipes, it is not necessarily the denseness that is directly causing the brighter tone.

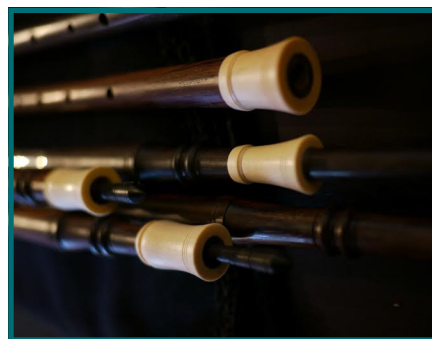
Palo Santo, also called Verawood or "Argentine Lignum Vitae", is an extremely dense wood, as dense as African Blackwood, among the densest woods in world. And it is as hard (which is similar but not the same as density) or harder than ABW. If it were purely the density or hardness that made for brightness,



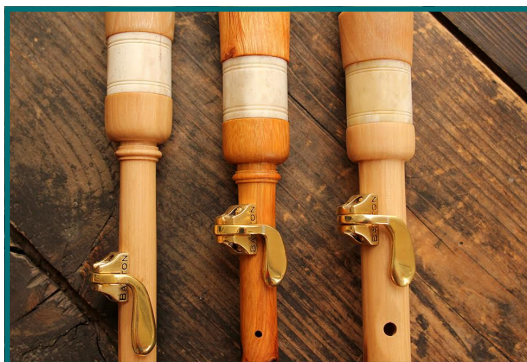
Mesquite



Palo Santo



Sonokeling



Hornbeam and Buckthorn

than this would be at the top of the list of making bright sounding pipes. But it's not. Bright tone in pipes is affected by many things, but when it comes to wood, it seems to be the smoothness of the bore that is more the

actual culprit. Denser woods tend to make for smoother bores, so this follows very logically. Palo Santo, due to several factors such as extreme waxiness (and a tendency to grow tiny crystals in the bore!) does not make a perfectly smooth bore. It makes a pretty smooth bore, but not a mirror-like bore like African Blackwood does. And this is why I believe it has a distinctively mellow tone than African blackwood despite its equal density.

And the reverse is also true, there are ways to make pipes made from less dense wood brighter. For example, if you carefully polish up the bore of a set of pipes made from apple, a much less dense wood, you can considerably brighten up the tone, not as bright as African blackwood maybe, you likely can't get a perfect mirror finish, but you can get them pretty bright. Just listen to recordings of

Tim Cumming's plum set and you'll hear some nice bright sounding pipes made from a softer wood.

All that being said, I'd be willing to say that only pretty highly trained ears would be able to tell the difference between the sound of pipes made from different woods all in the middle range of densities, or even, for that matter, trying to com-

pare between the middle range to the top or bottom. I find that, unless you're looking to have as bright a sound as possible, to perform miced on stage with other musicians for example, most pipers are pretty happy with a set made from the middle or lower the range woods.



Tim's Plum set

If you want to hear two sets that would be considered the two polar opposites in density, than give a quick visit to my woods page.:

www.natebant.com/woods/

On the above webpage there are videos of Tim Cummings playing a set of plum Smallpipes, which have a specific gravity of around .70-.75, and a video of myself playing a chanter made from lignum vitae which has a specific gravity of around 1.20-1.3 (it sinks in water). The fruitwoods like plum would be, in my opinion, about the least dense woods that can safely be used to make pipes from, while lignum vitae is generally agreed to be the heaviest wood in the world. If you listen to the two videos of Tim and I playing, what I think this illustrates is that, while the tone is different, it's not night and day, even between these extremes. And, while Tim's set is more rounded in tone, it still completely filled the hall he was playing in without amplification. Yes, there is a difference, but even the softer wood sets of pipes can have a very robust sound.

For Border pipes, the difference is a little more pronounced between the extremes in the wood tone spectrum, but not by much. Again, the way that a chanter is set up, a small difference in the reed strength, will have more to do with the sound than the choice of wood. Border pipe reeds change in tone, pressure and volume with only small changes in reed lip aperture, so comparing Border pipes of different woods can be tricky. It just goes to show how low on the list wood choice is for tone. But again, a good rule of thumb is the denser the wood the brighter the tone. And since, with Border pipes, we are fighting against a natural tendency for this design to be louder than our ideals, we have often tried to use wood choice to help us with that. A less dense wood does tend to take the edge off the upper brighter harmonics with a chanter, and that helps to decrease the "perceived volume"



Poisonwood

of a set of pipes.

We've used a decibel meter many times in the shop to get a true reading of what our pipes were producing for volume. It was a great investment, but we hardly use it now. The reason being, that we learned quickly 1) that we had, indeed, succeeded in dropping the decibel level of Border pipes to that of uilleann pipes and even below. And 2) there

was a new measurement we became aware of that could not be measured with an electronic device: Perceived Volume.

The decibel meter showed us that our Border pipes and smallpipes could, and generally did, play at the same decibel level (depending on the setup of each set of pipes). This was a bit of a surprise, but we realized that decibel levels are not actually the metric that we

were trying to hit. The loudness that our brains perceive is not exactly the same as decibel level.

Because smallpipes are an octave below Border pipes, they are mellower sounding. And we perceive that they are quieter, even when they are actually playing at the same decibel level. What does this have to do with wood? What we found is that many variables can alter the harmonics of a chanter. The truly best way to alter the sound of a chanter is to change the bore to make it mellower, secondly is to alter reed design, but a very good tool for accomplishing the same thing is wood choice.

What does this mean in laymen's terms? You will perceive that between a harsh sounding chanter playing at the same decibel level as a mellow sounding chanter that the harsh chanter is louder. Again, when a pipe maker is looking for a certain sound from his pipes, for example, less harsh upper harmonics, we want to alter the design of the bores and the reeds, but a good cheat is to simply use a less dense wood.

There's a temptation to think that, since they've been around so long, and all the best, fanciest people have been working on their designs for hundreds of years, that classical music instrument makers must know something we don't about wood choice and therefore African blackwood, which is

what the vast majority of clarinets and oboes are made from, must be the best wood for all woodwinds to be made from. But that's not true. Flutes are woodwinds, and they are made from metal. And bassoons are woodwinds (with very similar



Apple Wood

reeds to our own!) and are made from maple. There is no one best wood for all woodwinds.

We pipe makers do think that wood is an important choice among the variables in woodwind design, and we use woods' differences to our advantage, but we are living in the wild west of the woodwind world. That means that there is a bit of an "anything goes" mentality in terms of wood choice possibili-

ties, and it also means that we've got more important design considerations on our minds than which wood is "the best wood" for smallpipes or Border pipes. Maybe, just maybe, there is one best wood for each kind of woodwind, but I don't think so, but even if there is, we need to get this horse in front of this cart before we decide.



A New Perspective on Old Technique, Scales and Embellishments

-Barry Shears, 2016

“**T**he Scottish smallpipe, in its modern form, is a bellows-blown bagpipe developed from the Northumbrian smallpipes by Colin Ross and others, to be playable according to the Great Highland Bagpipe fingering system. Colin Ross's invention allowed Highland pipers to participate in musical sessions with fiddles, flutes and other instruments, as well as to accompany singers” (Wikipedia)

The Scottish small pipe (and to a large extent the border pipe) can be classed as a revisionist instrument and as such is open to interpretation and a variety of playing styles. It is an evolving tradition that benefits from the contributions of a great many performers, historians and researchers, regardless of their geographic location. Since there is no unbroken line of traditional teaching for the Scottish smallpipes many players are experimenting with a variety of technique such as slides, traditional Highland piping embellishments and cross fingering.

These techniques are very effective for ornamenting the music and some have made the cross over to the Great Highland bagpipe tradition. Due to the wide variety of pipe chanters available from a growing list of professional pipe makers not all embellishments will work on all chanters. A small amount of experimentation to see what works and what doesn't is the best way to achieve the desired sound from each individual SSP chanter. Despite these limitations pipers today can try a wide variety of technique to suit their instrument and skill level.

Since many of today's smallpipers have come from a highland bagpipe tradition, much of the music played on the instrument is produced using some basic 20th Highland bagpipe technique, such as GDE grace notes, doublings, and grips.

A perusal of 19th century tutor books for the Highland bagpipe, as well as Joseph MacDonald's Treatise on the bagpipe which was compiled in 1760, however reveal a wide variety of technique which fell out of favour among Scottish pipers in the 20th century. By examining the historical record in conjunction with research into aurally trained pipers in the Gaelic Diaspora on Canada's east coast we can examine

and reclaim some of this lost technique and incorporate it into current individual playing styles. Some of this technique includes Piobaireachd or Ceol Mor embellishments, and non-standard grace notes and scales.

The use of these older embellishments has been frowned on by modern pipers well versed in the competitive style, but there is historical reference to support the use of these older forms of technique. Additional sources, both written and oral, also promote the theory that embellishments for pipers were by no means standardized, especially in the 18th and 19th centuries. Collections by Joseph MacDonald and David Glen have been paired with my observations of traditional pipers in Atlantic Canada to illustrate some alternative technique. What follows are but a few examples of early bagpipe ornamentation.

Joseph MacDonald

Joseph MacDonald came from a musical family in Durness, Sutherland shire. He was born in 1739 and as a youth learned to play the violin and bagpipe, and could also perform on the flute. He collected several melodies from the highlands and was preparing them for publication on his long voyage to Calcutta in 1760 where he had accepted a position with the East India Company. Regrettably he contracted "malignant fever and died in 1763. The MS was lost and later re-discovered and published by his brother Patrick in 1803.

Joseph MacDonald's Compleat Theory of the Scots Highland Bagpipe is not a collection of tunes but rather a "tuition manual combined with musical examples and a general account of the music". As the late piping scholar Roddy Cannon points out in his preface to the edited work "A good deal of what Joseph writes is still reasonable familiar, but a good deal also is not". In his Treatise, Joseph describes a variety of cuttings and shakes (grace notes, grips, taorluaths and crunluaths) and says that (in light music) portions of these cuttings and shakes can be used (fig. 1) and gives the following instructions:

The Cutting of the Pipe Reels is easily acquired by any that is well versed in all the Tables & Examples already laid down, For they are all built entirely upon them. All the difference is that these large Cuttings are not to be found whole in the Reels, but divided & Subdivided, into 2/3rd 3/4th 7/8th &c of a Shake or Cutting. The longest that ever is found in a pipe Reel is Tuludh & Creanludh, the 11th Table, & 5th Shake of the fourth Table; which is to be Seen in the first Example here.^{50.3} As for these fractional Cuttings belonging to the Reels, See Examples as follow.

[No heading] ^{50.4}



Edited
version

Scottish smallpipes do not have dynamics, meaning performers cannot play a note louder or softer. To compensate for the lack of dynamics a series of grace notes and grace note combinations have been developed. One of the most frequently used grace note-combination which has been borrowed from the Highland pipe tradition are the G, D and E grace notes. Each of these single-fingered grace notes can be performed on a lower pitched melody note and have the effect of sharpening however briefly the melody note thereby “colouring” the note. G, D and E grace notes can also be combined to produce doublings, the most common being Doublings on B, C, D, E and F (Fig. 1.a). While many pipers today use a High G grace note (where playable) on the beat note there is also a tradition among several pipers in Cape Breton of leaving the beat note plain and unornamented. In a world where there is an overabundance of the G grace notes, plain melody notes can sound refreshing.

Figure 1a

Gracenotes and Doublings

A single gracenote can be sounded by moving a single finger from the chanter.

The three basic gracenotes in pipe music are High G, D and E. Gracenotes can be combined or grouped together to form doublings, slurs and more complex embellishments.



Slurs

A slur is very similar to the slide. It is comprised of a slide with a grace note (Legatto). In pipe music it is usually played on the following notes of the scale: D, High G and High A. (Fig. 2). In this embellishment the length of the slurred note can be adjusted to further “colour” or highlight individual notes in the music. Slurs are played “up” to the melody note.

Slurs



Ceol Mor (Piobaireachd) Embellishments

Two types of embellishments used in dance music have been borrowed from the Ceol Mor or Piobaireachd tradition. This is not a recent development for pipers. Research into the archaic playing styles of several Highland pipers in Cape Breton reveal a tasteful use of both the Dre and Trill on F movements in recorded performances. These movements play up to the melody note, whereas most modern bagpipe embellishments (doublings on B, C, and E) play down to the melody note (Fig. 3).

Figure 3



The concept of a standardized fingering technique appears to have been a “highly individual affair” in the late 19th century judging from the following description of competitive pipers in 19th century Scotland with a versatility of fingering absent in the 20th century.

Lieut. McLennan said... he was judge with a famous player once, and saw him put away a very good piobaireachd player for lifting the G [i.e. for playing an open C]. He was judge with another famous piper on another occasion, and he put away a man for doing the other thing [i.e. for playing a closed C]. He came across a very fine piper, the finest reel and strathspey player ever he heard. Two or three of them thought he did not play according to scale [i.e. he habitually ‘false-fingered’]. Another gentleman in town played D and E up [i.e. without simultaneously covering various holes on the bottom hand of the chanter]. He said he had been taught to play that way by Roderick MacKay, Angus MacKay’s brother, piper to the Queen. This piper said that the MacKays held that if they had the note and the finger below it open, that was alright...

Angus Campbell said that he asked Sandy Cameron about this point and been told “judge by the sound; if the reed is getting flatter, lift more fingers and sharpen up in that way (Donaldson, p.300)

An interesting concept and again not unlike musical examples I have recorded in Cape Breton whereby D melody notes are played with the C finger still on the chanter (D, B and A fingers raised) , or the Low A and D finger raised while playing notes on the top hand. It would appear that at one time in bagpipe performance, sound trumped technique.

A great reference for older bagpipe ornamentation is David Glen’s bagpipe Tutor. David Glen was a piper, pipe maker and music collector and editor. His father, Alexander, made bagpipes in the first half of the 19th century, and his brother Thomas Glen was also a bagpipe maker. The extended Glen family also collected music for the violin and published several collections of bagpipe music.

The following chart is taken from David Glen’s Bagpipe Tutor (c. 1876) and shows both modern and older technique. The doubling on E (6th Column) played with 2 High G gracenotes was a feature of the MacArthur pipers in Newfoundland. (Fig. 4) Other instructions in Glen’s Tutor are to use two D grace notes for the doublings on C and B, instead of G and D grace notes normally played. This style of ornamentation has also been recorded from pipers in Cape Breton.

Figure 4.

THE GRACE NOTES.

X

For explanation of this 2nd stave see preceding page.

Exercises on Nos 1. 2. 3. & 5. will be found on Pages XVI & XVII.

TUTOR.

The Oral Tradition

In Cape Breton, pipers such as the MacKinnons of Meat Cove / Bay St Lawrence, The MacDougalls of Ingonish, Alex Currie (d.1998) French Vale, and the MacArthur pipers of Codroy Valley, Newfoundland, and several others used a non-standard form of technique. This wonderfully diverse tradition can be partly explained by the methods of teaching. Pipers today learn scales from a written source, then grace notes, followed by a few simple tunes. The above-mentioned pipers began their bagpipe journey by learning a tune complete with embellishments, by ear, without the benefit of written music. Since they were community-based musicians their technique reflected local practice and convention and this technique often differed from area to area. The beginner tunes also varied from region to region. Alex Currie's first tune was the strathspey Tulloch Gorm and Sears MacArthur's first tune was the march The High Road to Gairloch (or as Sears referred to it as London Bridge is Falling Down). Learning a tune in this fashion embeds the ornaments within the melody and makes them part of the tune. The modern method allows the beginning piper

to overlay the ornaments over the melody once the scale and grace notes have been mastered separately. There is no one now who learns the first way. By comparing instruction techniques of other instruments such as the violin with that of the highland bagpipe, it becomes apparent that the second method has become the most preferred.

As we have seen, bagpipe technique and ornamentation has been quite fluid during the last few centuries. The increased reliance on written scores coupled with the homogenous influence of pipe bands and competitive piping in the 20th century ultimately led to musical standardization in the Highland bagpipe world. With the re-introduction of the Scottish smallpipes and Border pipes, pipers who are not interested in competitive piping can now expand the borders of these new session-friendly instruments. A study of early manuscripts, field recordings and published sources provide an invaluable tool to access the long lost techniques once used by pipers. This coupled with the piper's own imagination will ultimately fashion the way we play music in the 21st century.



Dan Foster

Dan Foster is a recent emigrant from York, UK who is a specialist in the traditional fiddle styles and tunes of Ireland, Scotland & England. He was classically trained from age 7 - 18 before discovering traditional tunes at FolkWorks Youth Summer Schools in Durham, UK. He further developed his fiddle playing style and tune repertoire amongst the well-established traditional music communities in Manchester and Newcastle, UK after leaving home in 2008.

He completed a Bachelor of Music (Hons) from Newcastle University in 2014, during which he traveled abroad to the University of Limerick, Ireland to further study the art of traditional Irish fiddle playing under the renowned Eileen O'Brien at the Irish World Academy. It was during his time in Limerick that Dan met his future wife, Irish dancer Courtney Jay TCRG, who, since retiring from top-level Irish dance competition, runs Scoil Rince Luimni - a burgeoning Irish dance school in Farmington and South Windsor, CT. In the final year of his music degree, Dan scored a first-class mark in his recital of fiddle music at Sage Gateshead in addition to his honor-level academic and music composition work.

Since settling in New England in March 2015, Dan has won a solo Old-Time fiddle competition in Roxbury, CT, is in high demand as a fiddle player for Irish dance competitions (feiscanna), traditional music pub sessions around CT, a range of other public performances and also studio session work with various solo acoustic artists and bands in the area.

Dan has a growing list of 1-on-1 fiddle students of all ages and abilities and he has taught for group workshops at the CT Academy of Irish Music in Wethersfield on multiple occasions. He is also the fiddle instructor at Callanish School of Celtic Arts, South Windsor and Downright Music, Collinsville. He mainly teaches his vast tune repertoire by ear as he believes that traditional music is more effectively passed down through aural means, however he will use sheet music and established tune book collections at the request of the student.

Laura MacKenzie

Laura MacKenzie has learned from many noted tradition bearers on both sides of the Atlantic, and has herself been recognized as a Master Folk Artist (Minnesota State Arts Board). Of Scottish heritage (through MacKenzies and Rankins), her people came to America by way of Nova Scotia and Northern Ireland. In St. Paul, Minnesota, Laura learned to play traditional music at ceilis (dances or social gatherings) within the local Irish-American community and soon became immersed in both the music and dance.

Laura's powerful array of wind instruments includes wooden flutes, many whistles, concertina, Scottish smallpipes, Border pipes, French Cornemuse, Spanish Gaita, Medieval English Greatpipes, Leicester smallpipes, gemshorn and voice. Laura has worked with many ensembles, from Boiled in Lead (world beat rock 'n reel), Walking On Air (British Isles folk), and Macha Trí (Celtic trio) to Lorie Line's Pop Chamber Orchestra, with whom she toured nationally from 1997-2005. Laura has been privileged to perform with some of the great names in Irish music, including Dáithí Sproule (of Altan) Paddy O'Brien, Liz Carroll, Martin Hayes and Katie McMahon (of Riverdance). She has also been honored to share the stage with heroes of Scottish and English piping, Hamish Moore, Jon Swayne and Julian Goodacre. Her love for the music of various piping traditions and passion for playing these instruments has lead her more recently to the music of Central France and Northern Spain, all of which she encompasses in performance. Laura's full bio can be found [here](#).

Chris Gray

Chris Gray grew up on Mount Desert Island, Maine, and has been playing music and creating art for as long as he can remember. He received his BA in Music and Visual Arts from Bowdoin College in 2010. He then went on to attain his Diploma in Irish Traditional Music and an MA in Ethnomusicology from University College Cork, in the south of Ireland, in 2011 and 2012.

Recently, Chris has immersed himself in the traditional Acadian music of Maritime Canada. With the support of Chuck Donnelly and the Acadia Trad School, Chris formed the group Août Gris with fiddle phenom Gus La Casse. Chris and Gus performed at the Acadian World Congress in August, 2014.

Chris is both an artist and a musician/composer. As a multi-instrumentalist, he specializes in playing the Great Highland Bagpipes, the Uilleann pipes, and Irish whistles in addition to being an accomplished percussionist. He has recorded and

produced three albums, *Piob More* (2010), *Ceol As Corcaigh* (2011), and *Août Gris* (2014)

Owen Marshall

Owen Marshall *Vogue* magazine calls musician Owen Marshall “A guitar/mandolin/banjo player rivaled in character only by the occasional three-pronged carrot” (*Vogue* 2009). Owen has performed and recorded with many of traditional music’s top performers including Aoife Clancy, Liz Carroll, Darol Anger, John Doyle, Andrea Beaton, Jerry Holland, Ari & Mia Friedman, his own traditional Irish trio “The Press Gang” and the acoustic trio “Haas, Walsh and Marshall”. His music has appeared on NPR’s “Thistle and Shamrock,” BBC television, and the back of his left elbow has appeared on MTV. In addition to being a respected performer, Owen is in demand at music camps throughout New England and the U.S., where he shares his approach to accompanying traditional music.

Owen tells us about his tuning technique: DADGAD guitar tuning is well suited to the music of Ireland, Scotland, Breton, and Scandinavia. By using chord shapes that have multiple open drone strings, one can emulate and complement the drones on pipes, or open strings on fiddle.

With DADGAD tuning, chords are often implied, or even incomplete. It is best used by providing a strong rhythmic foundation with the right hand, and adding subtle changes and harmonic openness with the left hand. With all those ideas in mind, DADGAD tuning can work very well in tandem with the regulators on Uilleann pipes

Iain MacInnes

Iain MacInnes (Scottish smallpipes) last taught at the Pipers’ Gathering in 2013. Although originally from a Highland piping background, he has been involved in the bellows pipe revival in Scotland since the early 1980’s. In that time he has made two solo piping CDs (*Tryst and Sealbh*), as well as a number of recordings with the groups *The Tannahill Weavers*, *Smalltalk* and *Ossian*. His day job also involves piping – as producer of the popular weekly pipe music programme *Pipeline* on BBC Radio Scotland.

Together with Hamish Moore he has recently produced a CD of Lowland pipe music and song, *Reclaimed*, for the Lowland and Border Pipers’ Society. This features a wide range of artists and embraces a variety of playing styles – a useful introduction to the breadth of material available for this lovely instrument.

Barry Shears

Barry Shears (Scottish smallpipes) is no stranger to bagpipe music. He began taking piping lessons when he was 12 years old in Glace Bay, Cape Breton. His first bagpipe teacher was Angus MacIntyre, a retired coal miner, whose ancestors had been pipers to MacDonald of Clanranald, South Uist, before Angus’ great grandfather immigrated to Cape Breton in 1826. Over the past 35 years he has compiled dozens of recorded interviews and performances with the last of the old style dance pipers of Cape Breton Island. This research has led to the publication of numerous articles, three collections of music, and a Master’s degree from Saint Mary’s University. Beginning in the early 1980s Barry is credited with drawing international attention to the almost lost art of dance piping in the New World through his numerous published articles, music collections and concert performances, often times accompanied by his two daughters step-dancing. Over the past 25 years he has performed, lectured and taught both Highland bagpipes and Scottish Smallpipes in Europe and North America where he has an extensive teaching portfolio.

Brian McNamera

Brian McNamera hails from County Leitrim, a musically rich rural region of Ireland which has produced notable musicians past and present and which has been prominently associated with the preservation and performance of Irish Traditional Music. Introduced to the Uilleann pipes in 1979, Brian has become renowned nationally and internationally for his unique musical style and repertoire. As a tutor of international renown, Brian is much sought-after to conduct individual and group workshops. His unique pedagogical skills honed from years of experience as a professional educator and as a performing musician have ensured that Brian is now one of the most respected tutors of his generation.

He is noted for playing both ‘Concert’ pitched and ‘flat’ pitched pipes as evidenced by his recordings. Brian’s musical style

is regarded as unique and clearly identifiable, and has been described as a beautifully sweet, articulate, controlled, staccato yet flowing style underpinned by definite phrasing and strong rhythm. Brian's numerous award-winning recordings speak for his prominent place in the world of Irish Traditional music.

Benedict Koehler

Born in Boston, Benedict Koehler grew up listening to recordings of Irish traditional music sent over by his mother's family in Dublin. He took up the pipes in his twenties and has listened to and learned from a wide range of the older players, citing as particularly strong influences the stately musical tradition of East Galway and the elegant piping style exemplified by Seamus Ennis and Liam O'Flynn. An engaging performer and teacher, and a renowned maker of the uilleann pipes, Benedict is well known throughout Ireland and North America. Along with his wife, harper and accordion player Hilari Farrington, he founded the Vermont School of Irish Traditional Music, where the couple teaches and promotes Irish traditional music and culture in their home state.

Bill Wakefield

Bill Wakefield notes "Since becoming associated with Bay Area Pipers in San Francisco about five years ago with, at last, convenient access to fine instruments and fettle, I've made more progress than in all my years of erratic false starts on the smallpipes since first learning its fingering by plugging the bell hole of my practice chanter as a teenager in the '70's. As an outsider in this piping and musical tradition I consider obligatory strict adherence to traditional, closed-finger technique; and for the most part I concentrate on the local, traditional repertory which, by happy accident is among my favorite of all and coincides, often surprisingly, with music I was raised on at home and at school growing up in Washington State. In recent years I seem to have earned the approval of a few respected performers and exponents in the Old Country for modest accomplishment in these areas, having won prizes at the Northumbrian Pipers' Society Annual Competitions. Half an adult beginner myself, and observing that most people playing are also adult beginners, I've been interested in finding ways to practice intelligently and efficiently. I think I've developed a few tricks can help speed progress toward gaining confident control of the challenging technique of this instrument in the interest of greater enjoyment of its beautiful and unique sound and repertory."

Will Woodson

Will Woodson plays traditional music on border pipes and wooden flute. He holds a master's degree in traditional Scottish music performance from the Royal Conservatoire of Scotland in Glasgow. He has played stages across Scotland, Europe, and North America, and is currently based in Portland, Maine where works for the well-known pipemaker Nate Banton. Will plays an active part in the lively traditional music scene of the North East and maintains a busy performance schedule with his bandmate Eric McDonald; the two released their debut album "The Sunny Hills" in the spring of 2015. More on Will can be found at willwoodsonmusic.com and willandericmusic.com

Vendors for the 2016 Pipers Gathering include:

B.C. Childress Uilleann Pipes - <http://bcpipes.com/>

Nate Banton Scottish Smallpipes & Border Pipes - <http://www.natebantons.com/>

Jerry Freeman Pennywhistles - <http://stores.ebay.com/freemanwhistles>

Monroe Bridge Books - <https://www.abebooks.com/monroe-bridge-books,-mariab-member-greenfield/668029/sf>

Pinchbeck Pipes - <http://pinchbeckpipes.com/>

Quietpiper Scottish Smallpipes - <https://sites.google.com/site/quietpiperssmallpipes/home>

Triskele Rhythm Bones - <https://www.facebook.com/TriskeleRhythmBones/>

The Wisdom House Gathering

Bob Cameron

I Rolling 9/8 ♩ = 72



II



III



IV



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The Litchfield Hills

Triple Time Hornpipe

Bob Cameron

$\text{♩} = 100$ I

II

III

IV

V

VI

The musical score is written on a single staff in treble clef with a key signature of one sharp (F#) and a 3/2 time signature. It consists of six numbered sections, each marked with a Roman numeral in a box. Section I begins with a tempo marking of a quarter note equal to 100. The music is a hornpipe, characterized by its 3/2 time signature and rhythmic patterns. The score includes various note values such as quarter, eighth, and sixteenth notes, as well as rests and repeat signs. The key signature remains consistent throughout the piece.

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Didn't We Meet in Litchfield?

Triple Time Hornpipe

Bob Cameron

The musical score is written in treble clef with a key signature of one sharp (F#) and a 3/8 time signature. It consists of ten staves of music, each beginning with a first ending bracket labeled with Roman numerals I through VII. The notation includes eighth and sixteenth notes, rests, and repeat signs. The piece concludes with a final double bar line.

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If you would like to make a donation or otherwise financially assist the Pipers' Gathering, talk to someone at the **Registration Desk**, or contact treasurer@pipersgathering.org

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Pipers Gathering
c/o 49 Plains Field Drive
South Dartmouth, MA 02748

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“What’s the greatest nation in the world? Do-nation” S. Bliven, M. Stayton et al

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The Bagpipe Society; Jeff Bain; Joanne Bierschenk; Michael Dow; Christine Mollison; Gayle Largey; David Mac-Adam; Lucas Mitsch; Ron Schlie; Richard Shuttleworth Richard Wolff

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