

## THE PASTORAL OR NEW BAGPIPE.

Pastoral bagpipe is just one name given to an instrument whose origins are little understood. Probably the best known and the earliest surviving document is a tutor and tunebook published by John Geoghegan in 1746, in which he referred to the instrument as the 'pastoral or new bagpipe'. Other names are Irish bagpipes, union bagpipes, hybrid union pipes, organ pipes, and old Northumbrian bagpipes. Grove's Encyclopaedia of Music in 1954 contained the following description by William A Cocks: ".....a form of hybrid Irish Union Pipes, generally having two tonic drones in octaves, and a "regulator" all in one stock. The chanter is like that found on the Irish pipes, but it has an added foot joint and is played as the ordinary Scots form. This type appears to have been in use in the later half of the 18th and early 19th centuries, but has completely died out. Neither Ireland nor Scotland will own to it."

We will probably never know who first designed the instrument, but we can say something about the cultural and musical climate in which it came into being, and for this it is interesting to look at the situation in classical music. By the middle of the 17th century, wind instrument playing was at a low ebb. The shawm and curtal which formed the backbone of the renaissance wind bands, and the recorder which was used in indoor music, had fallen into decline. The new musical styles coming out of Italy favoured the violin. But in Paris, Louis XIV, the 'sun king' was presiding over Europe's grandest court, and enormous sums of money were being spent on entertainment, which meant employment for musicians and musical instrument makers. A group of talented turners and woodwind makers from the Normandy village of La Couture-Boussey were working in Paris, of whom the best known is Jean Hotteterre. It was there and then in response to primarily musical demands that the extraordinary burst of creativity took place which gave rise to the birth of instruments which became our modern woodwinds, flute, oboe and bassoon. The recorder was also given a rebirth at this time, and the clarinet was invented a little later in Germany. It is thought that the first orchestral performance on the new oboe took place in Paris in 1657. One feature which distinguished the new woodwinds from their more primitive ancestors was the fact that they were made in several relatively short joints or sections, four in the case of the oboe and flute, which amongst other things enabled easier and more precise construction. The necessary increase in wall thickness over a socket allowed the turners to express their feeling for beauty of line, as witnessed by the many magnificent 18th century flutes, oboes and recorders which survive. This was of course the era of the baroque which found its expression equally in the exterior forms of musical instruments as in the style of the music they were required to make. Showing this characteristic to a high degree was the musette de cour adapted from the rural musette by Jean Hotteterre who according to Anthony Baines was above all a piper and bagpipe-maker. The musette often used costly materials such as ebony, ivory and silver; the bag was covered with embroidered satin, and above all air was supplied by bellows, so that the ladies and gentlemen of court did not have to disfigure their faces by undignified blowing. Tutors were published for the instrument, lessons were given, they were taken on picnics, and featured in pastoral ballets. By contrast, as far as we know the pastoral bagpipe was never a court instrument, but it was often made of expensive materials and it did show the same flair for beauty of line and turning expertise as the musette and other contemporary woodwinds.

In Britain there was a passion for music in the home and, as in France, there was a fashion for music, operas and stage performances on rural or pastoral themes which continued into the late 18th century. Here we have that word pastoral again. The Concise Oxford Dictionary gives the principal definition as 'of shepherds', and for the related word pastorale it has 'simple opera etc with rural subject; slow quiet instrumental composition with notes flowing in groups of three & usually with drone notes in bass suggesting bagpipes'. John Gay's 'The Beggar's Opera' written in

1727 was woven around popular ballads and melodies of the day. It featured the pastoral pipes and included the tune "A Charming Nun to a Fryar Came" which is also found in Geoghegan's tutor and in John Playford's "Compleat English Dancing Master" of 1728.

The main features of the pastoral pipes are as follows: a long narrow chanter, typically around 520mm (20") in length made in two parts, the body 330mm (13") and the foot 190mm (7"). The foot carries two ventholes (though sometimes only one is seen). The bore generally approximates to a straight cone starting at around 4mm at the throat expanding at a taper of between 45 and 50:1. Fingerholes are small; usually less than 5mm. Earlier, simpler models have two drones, a bass and a tenor. Later you find three drones in octaves, and sometimes a single regulator with two or three drones. And representing what may be a culmination in the development of the instrument, in the National Museum of Scotland there is an exquisite set made in ebony or cocus, ivory and silver, possibly by Robert Reid of North Shields, with four drones (the fourth drone playing a fifth above the middle drone) and two regulators fitted not beside the drones in the subsidiary stock but on the side of the main stock. The chanter also has keys for C natural, B flat, G sharp and F natural (assuming a D tonic). This is the only keyed pastoral chanter I am aware of (apart from two in the Chantry Museum at Morpeth which have keys for the right hand little finger). The bass drone is compressed physically in the way found on early union pipes. That is to say, the drone stock is made in two parts. The drones themselves fit into a plug or subsidiary stock which fits into the main stock. The bass drone is looped back into the plug in which a channel is cut leading to the third section of the drone. The third section ends in a tenon for the socket of the final bell section of the drone. The pipes are of course bellows-blown, and all the parts are generally of fine, elegant construction.

I have mentioned the assumption of a D tonic, i.e. that the basic pitch to which the six-finger note and the drones are tuned is D. In fact the natural pitch of both Robertson sets mentioned in this article seems to be close to E flat; other investigators have reported the same finding. Interesting that an instrument purporting to share the same compass as a flute or oboe should be pitched a semitone above modern D at a time when the prevailing pitch is likely to have been around a semitone lower. They are at the higher end of a dozen or so sets of measurements, out of which only one is likely to play lower than modern D, and that one probably would not be as low as C sharp.

In November 1998, two sets of nearly identical pastoral pipes were sold at Sotheby's in London. They were described as Scottish Union pipes, and one of the chanters was marked Robertson. This would be Hugh Robertson who worked as a turner and bagpipe maker on Castle Hill, Edinburgh in the last quarter of the 18th century. Apart from the fact that this is one of the very few sets marked with a maker's name, the most astonishing feature to me was the smallness of the bag, which appeared to be original. The main body of the bag measured a mere 250mm (10") x & 180mm (7"). The leather was probably sheepskin, pale cream in colour, quite soft almost like chamois leather; turned inside out, presumably through the dronestock hole after sewing, and sewn with small neat stitches, incorporating a separating strip or gusset between the sewn edges of the bag. In fact in workmanship it reminded me of a musette de court bag which I once saw, I think in Paris. The bellows were also quite small and neat, a little bigger than Northumbrian smallpipe bellows. Although I have seen or measured a dozen or so pastoral pipes, I had the impression for the first time that the instrument must have been more economical of air, and play at a lower pressure than I had previously assumed.

The frontispiece to Geoghegan's tutor shows a man in fashionable clothes playing the pipes in a formal garden in front of a large urn.



It's fascinating to compare this with the painting 'Le Concert Champêtre' by François-Hubert Drouais (1727-1775).



Though the French painting is much more opulent both in its execution and content, the parallels between the two pictures and the spirit behind them are striking. On the other hand, similarities

between the musette and pastoral pipes while not immediately obvious, are also surprisingly extensive.

- In the first place, both are quieter than the 'normal, outdoor' pipes of the period. The lower volume was required in order that the instruments could be played with other art instruments such as flute, violin and harpsichord without overpowering them. This was achieved partly by the relatively low pitch for a bagpipe and partly by bore design. The musette has a narrow cylindrical bore and very small finger-holes, whereas the pastoral pipes as I have said before use a conical bore with a very shallow taper, and small finger-holes. The taper of between 45 and 50:1 compares with a taper of around 30:1 on an early baroque oboe, and 38:1 on the modern oboe.

- Both instruments have found ways of extending the normal bagpipe range of nine notes. Jean Hotteterre was responsible for fitting a second chanter, the so-called *petit chalumeau* to the musette; it is accommodated beside the main chanter in a double chanter stock. It has a blind bore with 6 holes covered by 6 closed-standing keys (as on a regulator), three on the front operated by the left little finger, and three on the back by the right thumb, and it extends the range of the instrument upwards by a 5 semitones and 1 whole tone, in other words, a fifth. As well as forming an extension to the chanter range, it can be played at the same time as the chanter.

As far as the pastoral pipes are concerned, the fingering chart in Geoghegan's tutor shows a range of 2 octaves and 1 note from low C up to high D, chromatic notes being achieved by cross-fingering. That the chanter overblows is a result not only of the shallow taper, but also of the disposition of the finger and vent holes, the design of the reed/staple combination, and the fact that the reed is set up to respond to a relatively light pressure.

- In both instruments, attention is paid to making it physically less unwieldy by compressing the size of the drones, the musette using the shuttle system.

- With the addition of a regulator to the pastoral pipes, both instruments have a means of playing a simple accompaniment to the chanter melody.

- Though of course this is not unique to them, both instruments are bellows-blown.

- Tutors were published for both instruments, which implies that their owners could not only read, but also read music.

- Finally it seems likely at least until the mid 18th century that the instruments were in use chiefly by wealthy amateur musicians. They must have been quite expensive by the standards of the day, and no doubt appealed to the kind of people who perhaps had a harpsichord in the front room.

At this point I would like to quote from the Preface of Geoghegan's tutor, as it helps to give a feel for how the instrument was regarded, and raises certain question with regard to its performance.

"The Bagpipe being at this Time brought to such Perfection as now renders it able to perform the same number of Notes with the Flute or Hautboy, I thought it might be acceptable to the Curious to set forth this small Treatise, and I hope my Labour will not be intirely unworthy their Notice, having taken the same with a View of explaining all the Difficulties which deter a great many from attempting it, and prevent any Improvement to be made in the Musick of this Instrument.

I have known some young Gentlemen who had not only a fine Taste for all sorts of Musick, but also a fine Genius to have a great Desire to play the Bagpipe, yet have been hindered from what their Inclinations so urged them to, by this Instrument's wanting a scale or Gamut to learn by, which all other Musical Instruments of any Value have.

My principal Design in this Treatise is by a Scale or Gamut to shew the Manner of Making all the Notes that appertain to this Instrument, Natural, flat and sharp, with the Way of adjusting them exactly, whereby a Man may thoroughly understand the principles of this Instrument. I have also explained all the shakes and other Graces particularly adapted to this Instrument by perfectly understanding these Rules & Scales. Those of good Genius who are disposed to play this Instrument may be able to improve the Musick of it very much beyond what at present it is. I flatter

myself this Treatise will not be unacceptable to the Professors of this ancient pastoral Musick or to the Makers of the Instrument, one of whom I am informed has of late invented a Way of fixing two keys to the Chanter or Pipe whereon the Notes of Musick are made, which perform a Note more than any other Pipe or Hautboy, and make some flat and sharp Notes with great Exactness. But since I have not met with any Pipe of that kind, I hope it will satisfy them that I have made this Scale so as to explain the Manner of Makeing all the Flats and Sharps, Independent of any Keys."

First of all the writer attempts to place the instrument on the same footing as art instruments, and appears to be addressing the kind of audience to whom the idea of learning an instrument without written assistance, moreover, written music is problematical. Secondly, although further on in the tutor he does describe in words how to perform what he calls shakes and graces, he does so somewhat perfunctorily and without any very precise written examples. Thirdly he admits to being unacquainted with the latest developments. Finally he implies that the ability of the keyless chanter to perform accurate cross-fingered chromatic notes is in doubt, suggesting that a keyed version can do so with greater exactness. These are just some of the issues raised by the tutor. I shall be alluding to the music in a moment. As far as the issue of keys is concerned, we know that at least one instrument with a keyed chanter was produced. This would not have been done, had cross-fingering been entirely successful, which is borne out by my own experience with the instrument.

When was this instrument first produced? I would like to think it was towards the end of the 1600s, and that some of the same spirit of innovation I have described as happening in France was also taking place in Britain and Ireland. New ideas in musical instrument technology have generally propagated themselves relatively rapidly in Europe, allowing composers to perform and audiences to hear the latest music. Brian McCandless, part-time musician and pipemaker from Philadelphia, says that the first fingering chart he has found is dated 1704, which of course implies a pre-existing instrument. Some years ago I saw a pastoral chanter belonging to Alan Ginsberg made in one piece of wood, the only pastoral chanter I have seen so made, which is a reminder that joints in woodwinds were not in general use until the second half of the 17th century. It was clearly of earlier provenance than the average surviving examples. Perhaps it was an early experiment.

How widely was the instrument used, and what was its distribution? Besides its documented role in popular stage performances of the rural kind or otherwise, Brian McCandless believes that it was made and played throughout United Kingdom of the 18th century, and in Ireland - Dublin, Aberdeen, Edinburgh, Glasgow, Liverpool, London and England's colonies. In fact in Philadelphia Brian has described and copied a set made by William Squire who lived in Bucklyvie, Scotland in the 1770s and who took them with him when he emigrated to America. They have been in the family ever since. There are scores of sets of pastoral pipes known to exist, not only in museums such as The Chantry Bagpipe Museum, Morpeth, Northumberland, the National Museum of Scotland, Edinburgh, the Edinburgh University Collection of Historical Musical Instruments, the Pitt Rivers Museum, Oxford, the Museum of the Conservatoire of Music, Brussels and but also in private hands. Geoghegan's tutor is known to have run through six editions, which suggests that it sold in considerable quantity. On the other hand, it is possible that it was sometimes bought only for the tunes, of which there are 41. They are a curious mixture, some being quite playable and idiomatic on the instrument; in other words, they are bagpipe tunes. Others, especially those which seem to be operatic airs, pay no regard to the existence of drones, sometimes modulating into another key. Some are written in B flat, but played in D they lie outside the range of the chanter. Still others jump about so much that it's difficult to see how they could have been comfortably played on the instrument.

Comparing the instrument with early examples of union pipes shows that save for the pastoral foot joint the two instruments are virtually identical. Some years ago I had the opportunity to measure and photograph a most beautiful set of pipes by Kenna (Timothy Kenna, 1768-94?) in boxwood and ivory with brass mounts and keys. The chanter measures 390mm (15 3/8"), which makes it slightly shorter than the longest known pastoral chanter body. The foot of the chanter carries a very plain stepped ivory mount. There is a single four-key regulator and four drones, three in octaves and the fourth playing a fifth above the tenor. The bass drone is arranged in the same way as pastoral pipes. The workmanship is immaculate and shows the same unerring flair for line and proportion.

It's interesting to note that if you remove the foot-joint from a pastoral chanter, it functions quite well played with the same technique as the union pipe chanter, although the two systems work best with slightly different reed/staple setups. In particular, the pastoral chanter seems to prefer a shorter staple than is usual with union chanters. This is supported by what is believed to be an original reed fitted to a pastoral set by Robertson in Brussels, which measures about 59mm (2 3/8").

Sometime, somewhere it was found that the chanter performed just as well and in some ways better without the foot-joint. It's not difficult to see why this should have happened, since the ability of the footless chanter to be stopped on the knee, enabling staccato playing and easier overblowing, makes for a more expressive and versatile instrument. When I gave this piece as a talk to the Lowland and Border Pipe Society, I rather carelessly said that the loss of the foot-joint only prevents playing standing up. I am grateful to Roderick Cannon for pointing out that of course the loss also affects all tunes containing a low C sub-tonic, and prejudices a whole style of playing involving the low C, especially the use of what we would call the birl. Geoghegan says: "The first and chiefest Curl is perform'd by the little Finger of the lower hand on the Chanter which is done by a doubling the little finger on the lower hole. This Double is done by a moveing the finger to and fro on the lower hole. It performs the sound of two Quavers which when a Man is Master of doing and playing a few Tunes he will be able to give several Graces therewith." Modern uilleann piping employs the cran for gracing low D. Perhaps this ornament would not have been invented had the chanter not lost its foot.

I would suggest that it is possible to speculate that the pastoral pipe was the prior instrument, that the foot joint was discarded at some stage, that instruments both with and without the foot-joint continued to be made in parallel for a period ending in the early 19th century, and that thereafter the pastoral type fell out of favour.

I will briefly summarise my attempts to date to make a playable set of pastoral pipes, based mainly on the Robertson set in Brussels which I have referred to above. Although I have measured or been given measurements of quite a few sets, I chose this set to copy for a number of reasons. 1) It's one of the few sets made by a known maker, 2) it's a good example of a middle to late period instrument in good condition 3) it has 3 drones at the octave and a single regulator 4) its proportions and therefore pitch are typical, 5) it does not seem to have been altered.

As always it is a relatively simple matter merely to copy the various parts. Aside from the reeds, the chanter is naturally the most important part and the one to which the greatest attention must be paid, particularly with regard to the accuracy of the bore and wall thickness. Nevertheless more time has been spent on trying to arrive at a suitable chanter reed than on any other operation. So far I have succeeded in getting a two octave scale, reasonably well in tune, especially in the lower octave. The main difficulty seems to lie in the lower half of the second octave where there is a tendency to flatness. Some of the cross-fingerings suggested by Geoghegan work fine, some not. Usually it is in the upper octave that difficulties occur. Furthermore, although the upper octave can relatively easily be reached stepwise, i.e. when playing a scale, to attempt real melodic intervals is much more difficult.

When set up so that the playing pressure is comfortable, the instrument plays at quite a moderate volume, suitable say for the evening fireside when you don't want to disturb the neighbours. There is a nice compact sweet drone quality. To my mind the chanter quality in the lower octave lacks character, but it improves in the upper, where it approaches the sound of a footless union chanter. Future work will be directed at refining the chanter reed, where alone there are after all so many variables, and in attempting a regulator.

It is self-evident that from the end of the 17th to the beginning of the 19th centuries, much care and skill has been expended on the production of a substantial body of instruments. They are undoubtedly fascinating and beautiful but seem to raise more questions than we can yet answer. Whether the instrument can become the real working tool of a modern musician to my mind remains to be seen.

Note: I have had a lot of help particularly with reeds from various makers, enthusiasts and experts and would like to record my thanks, especially but not exclusively to Colin Ross, Hamish Moore, Brian MacCandless, Geert Lejeune, Geoff Wooff, Julian Goodacre, Dave Shaw, Keith Sanger and Ross Anderson.

Jon Swayne, January 2001.

The above has been given as a talk, with slight variations, at the William Kennedy Piping Festival, Armagh, November 1998, at a Colloque organised by the Centre Regional des Musiques Traditionnelles en Limousin in October 1999, at the annual Colloque of the Lowland and Border Pipers Society (but I've forgotten when), and has also formed the basis of articles.

In the time that has passed since the above was written, I have made an instrument in concert D based on another superb Robertson original.

I have also gained a great deal more experience in making reeds for the instrument. As a result, I feel that my remarks about the tone quality of the instrument need modification.

In short, better reeds have resulted in a stronger sound, and a much improved tone quality in the lower octave. In the second octave, tuning and definition has been improved. The bag pressure required to play the second octave has been moderated. In general a great deal has been learned about the way in which the instrument can be made to play.

I have observed in relation to the pastoral chanter that there may have been two fingering systems in use. The differences lie in the size and disposition of the top finger-hole and the thumb-hole. Some chanters have a smaller top finger-hole placed somewhat lower down. With this system and only the thumb-hole closed, the note C natural is given (assuming a D tonic).

The other system has a somewhat larger top finger-hole placed higher up. On this system the same fingering gives a major seventh, and a minor seventh is playable with cross-fingering, typically the two lower fingers on each hand, or just the two lower fingers of the top hand, while the octave is given by closing the top six finger-holes and opening the thumb – a fairly common fingering for this note.

In addition to this, I have observed three chanters having two top finger-holes separated by a few millimetres along the axis of the chanter, presumably one for the major, and the other for the minor seventh, the one not required being blocked. Indeed in the Chantry Museum at Morpeth there is a chanter with a brass slider which can be as it were preset to open one or other of two holes giving a major or a minor seventh. From this one can speculate either that cross-fingering was not regarded

as a satisfactory solution to obtaining the required notes at correct pitch, or that the required fingering was simply awkward.

The smaller top hole system lends itself to playing with a fingering closer to highland bagpipe chanter fingering since opening the thumb-hole then gives the octave, the disadvantage being that there is not necessarily a reliable major seventh.

Finally, apart from experimenting with the effects of differences in the top holes as explained above, my approach has been to work with what has been given by the makers of the surviving originals, preserving the proportions of the bore, the exterior form, the position and size of the finger-holes and so on, and thus to strive to discover what the original instrument was capable of, rather than making alterations in order to impose some preconception of how the instrument may have played.

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