### **Shawms Around the World**



## Jeremy Montagu



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#### Jeremy Montagu

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Jeremy Montagu

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#### **Preface**

This book serves as an amplification of the Double Reed section of my book *Reed Instruments: The Montagu Collection, An Annotated Catalogue* (Lanham: Scarecrow Press 2001). That book had a minimum of history and other material, and also it had no illustrations, both of which lacunæ will, I hope, be rectified here. It also very considerably amplifies other material already on my website.

I should much like to thank my grand-daughter Kate Roseman for taking all the excellent photographs which will be found here, and above all my son Simon for formatting it all so creatively into a book (as he has already done to others of my books on this site) so that it can stand here as a free download for all who may find it useful.

Any reader who may be interested in the detailed dimensions of any of the instruments, should consult the *Annotated Catalogue* referred to above. The instruments are always available to be examined, but because almost all are in my home, this can only be by appointment; there is a contact email button elsewhere on this same website.

The Catalogue numbers for my collection are listed by a Roman numeral for the volume of the ledger catalogue and an Arabic number for the page in that volume, e.g. III for the volume and 188 for the page.

#### Our Earliest Evidence

All shawms are played with double reeds but they then divide between those with cylindrical bore such as the ancient *mat*, *aulos*, and tibia, and the more modern hichiriki, guan, mey, balaban, etc, and between those with expanding bore which are seen and heard much more widely around the world. They are heard more widely because they are louder, and they are therefore useful for all sorts of activities, especially outdoors, and also because they have a wider musical range, covering at least a twelfth and often two octaves, unlike the cylindrical-bore shawms, which are limited to an octave or less. In normal use in most musical genres, other than our symphonic repertoire, melodies can sit comfortably within the musical range of a twelfth or so, an octave and a half. Think of our folk songs, those tunes in the song books familiar to our children, and even church hymns, and we can see that few of them exceed the range of a twelfth, and this is generally true around the world.

The basis for all of them is the double reed. It is the reed that makes the sound – blown by itself the reed will crow, but by itself it won't do much more, not much more than the real crow's bird call, whose sound the reed resembles, but attach it to a tube, place the reed inside the mouth where the touch of the lips cannot inhibit its vibration, and then it will really sound.

As I said above, those with cylindrical bore are both comparatively quiet and are also limited to a range of less than an octave, unless provided with extra holes or keywork like our clarinet. We will therefore leave consideration of them until the last chapter of this book.

The expanding bore shawms have a shorter history than the cylindrical ones, chiefly and simply, I suspect, because the bore is expanding. Expanding bores are not a natural state of things. Tubes exist everywhere in nature but all are more or less cylindrical. An expanding bore must be made by a tool, unless a creative mind can envisage a stepped bore – one tube inserted into another in a telescopic-like series, each wider than the preceding tube – and this does work quite well. Alastair Dick found evidence of such shawms in some parts of India that seemed, from their use in Tribal Indian musical contexts, to have been earlier there than the introduction to India of the true expanding bore shawms, which were introduced by the Moghul invaders from Persia, and Nazir Jairazbhoy recorded just such instruments that were still existing in his Musical Journey. We cannot be certain, however, that these later stepped-cone shawms might not have been back-formations, just as in other parts of India we find trumpets made in exactly the same way, one piece of tubing inserted into another, plus a segment of gourd as a bell, so as to imitate the calls of British army bugles.

The most basic tool to form an expanding bore is of course a knife, but it is not easy to use one to carve a bore of any very useful length, especially if both instrument and knife are held in the maker's hands. Ideally one needs a lathe so that the instrument can be rotated and a tool applied to it as it spins on the lathe. One then needs three tools: one a drill, to make a pilot bore down the centre of the tube; the second a reamer, a tool that has been shaped to match the desired bore; and thirdly a chisel, a gouge, or a similar tool, to shape the exterior, for if the inside is going to be expanding from one end to the other, it is less clumsy if the

outside does so as well. A thick piece of wood, with a diameter wider than the final expansion of the bore, would be heavy to hold, awkward to look at, and would cause drastic tuning problems because each fingerhole would be longer through the wood than the hole below.

And we have to hope that indeed the outside was always shaped to match the inside, at least to some degree, because, when we try to form the early history of the shawm, if we see that the outside shape is expanding, this external expansion is our only clue that the inside may also be expanding.

The earliest evidence that I have as yet found for the shawm is a Faliscan bowl (the Faliscans were a sub-tribe of the Etruscans) dated to c. 480 BC, decorated with a scene of the contest of Apollo and Marsyas. The bowl is now in the collections of Stanford University and it is illustrated by Heinz Becker, Abb. 3, in his Zur Entwicklungsgeschichte der antiken und mittelalterlichen Rohrblattinstrumente. Marsyas is holding a pair of instruments, one in each hand, and they have large double reeds with bridles, rather like those of the mey, balaban, and hichiriki (for which see below). The outside of each instrument is clearly expanding, but there is no way of telling whether the inside is also, save that there seems little point in taking the trouble to carve or turn an expanding exterior unless the bore is to be expanding as well. Following that, there is also a number of other Etruscan and Roman illustrations of slightly later scenes that include shawms, for example those published by Fleischhauer in the Musikgeschichte in Bilden series (eg Abb. 4, 11, 37 in his Etrurien und Rom), some of which are more obviously expanding.

There then comes a gap in the evidence, for the next illustration that I've found is in a series of eighth- to ninth-century CE Sassanid silver vessels, the best known of which is in the Musée des Beaux Arts in Lyons. These are illustrated by Henry George Farmer in another volume in the same series, (*Islam*, Abb. 4-9), which show a clearly expanding shawm, and with it an oriental form of over-arched harp, a Chinese mouthorgan, a form of 'ud strongly resembling a Chinese *pipa*, an hourglass drum, and on other vessels in this series, pairs of tong cymbals and of clappers.

I cannot help digressing here: what were a Chinese mouthorgan, and a very oriental form of 'ud doing in Sassanid Persia? Do these silver vessels show us groups of Chinese traders who had come all the way down the Silk Route to Persia, rather than the more normal practice of passing their silks and other goods from one trader to another along the Route? Instruments do get passed on hand to hand, but normally only by travelling players, but though perhaps these were not traders but itinerant musicians trying their luck in a new area, just as we see South Americans playing in our streets today, none of them look Chinese. And it does seem a long way to have walked. The harp is more of an Indian or even Persian shape, tong cymbals are still used in Turkey, and are illustrated in a number of European mediæval manuscripts, and clappers are universal. The 'ud came originally from the Persian area and spread both east and west, but this one does look rather more like a Chinese pipa than an Arabic 'ud. But the mouthorgan presents a real problem. It is clearly a Chinese sheng and we have no other evidence for such an instrument before one arrived in St Petersburg in the mid-eighteenth century and thereafter spawned all our free-reed instruments. Mersenne does show a Laotian khāēn in his Harmonie Universelle of 1636. with a detail of its free reed, and that seems to have aroused no further interest in France in the 1630s, so perhaps also this Sassanid appearance of the sheng also passed by without any further interest or influence.

Returning to the evidence for the shawm, from here on, from the eighth or ninth centuries, the evidence is fairly continuous from Persia through Egypt to Tunisia and into southern Spain, the visible evidence hindered somewhat by Farmer's obsession with the lute to the exclusion of other instruments among his illustrations, and it culminates with the Castillian *Cantigas de Santa Maria* in the second half of the thirteenth century, a source that is now well known to us all. Here we have several types of shawm both mouth-blown and bag-blown and from then on we have a clear and continuous history.

All of this makes up a very sketchy history up to here, but as so often in archæology, and especially in archæological iconography, we only have what we have, and what an author may have found, and we have no way of knowing what else may be out there nor whether any more might one day appear. There is a myriad of painted pottery and silver vessels in museums and private collections: there is no doubt a vast amount still under the earth, and so little has ever been published or discovered. Can we assume that it was the Etruscans who first produced the expanding-bore shawm? On present evidence the answer seems to be Yes. Was this instrument then preserved in the Middle East? Here the answer is much more certainly in the affirmative. And did it then come from North Africa into Europe through Spain? Here the answer is very certainly Yes. We know that the south of the Iberian Peninsula was settled by the i-Mazigh-en, as the Berbers should properly be called ('Berber' is a pejorative name cognate with barbarian) and that by the thirteenth century the three cultures of Muslims, Christians, and Jews were symbiotic, living together, alternately in peace and persecution, and we see all three working musically together in the illustrations of the Cantigas. And since we have no other evidence for shawms in that period elsewhere



Figure 1-1: Captains of the Waits with shawm and bombard (tenor shawm). Beverley Minster Nave.

in Europe, it is clear that that is how the instrument came into Europe.

Certainly by the fourteenth century the shawm was well established throughout Central and Western Europe, for we can see it in many manuscripts and church carvings. Equally certainly it became the leading melodic wind instrument, mouth or bag-blown, with only the pipe and tabor as its rival for all dance and festive occasions. At Beverley Minster, for example, it was the leading wind instrument. That Minster was the Guild Church for all the minstrels of the north of England, from Trent to Tweed, and on the walls of the nave of the Minster we can see two shawm play-

ers, and these are the only two of all the carvings of minstrels in the Minster who are wearing swords – they were clearly the leaders of all the minstrels with shawm and bombard [Fig. 1-1].

Having mentioned mouth- or bag-blown here and previously, we should digress briefly on to bagpipes. A shawm in a bag and a shawm in the mouth are the same instrument; the bag simply replaces the mouth. In each case the reed is wholly in the mouth or in the stock of the bag – it is not gripped in the lips as with our oboe or bassoon, save for those few cases where the shawm is verging towards the oboe, as today with the Indian *shahnai* or the players in many of our early music ensembles. The bag is simply a labour-saving device that replaces the cheeks of the player, for shawms everywhere are played with continuous breathing, a process that is sometimes known as cheek-pumping.

While the player is blowing out through the pipe, he is at the same time breathing in through his nose, alternating the air from his lungs with the air from his cheeks. 'He' and 'his' are justified here, for traditionally the shawm was normally played only by men. The only problem with this breathing system, which is often taught by blowing through a straw into a glass of water and ensuring that there is a continuous stream of bubbles, is that the air from the lungs is controlled by pressure from the diaphragm, whereas the air from the distended cheeks is controlled only by the muscles that run across them. These muscles are naturally weaker than those which pressure the diaphragm, and as the air pressure drops when blowing from the cheeks, so does the pitch.

This is the most important part of the process that the shawm player has to learn, to keep the air pressure steady. Alternating between lung and cheek blowing is fairly easily learned – so long as the bubbles keep coming, all is well – but learning how to stabilise the air pressure takes more time, and much more practice.

But with a bag there is no problem. So long as the bag is kept full, and the pressure from the elbow is steady, there is no problem. If the bag is large enough, and if the mouthpipe is fitted with a flap or other non-return valve, the player can even sing to his own accompaniment, though if there is no non-return valve (as with the Tunisian *zukra*, for example), then the player has to put his tongue over the end of the mouthpipe while he stops blowing, so as to be able to breath in. A further advantage of the bag over the mouth is that there is no limit to the number of pipes that can be blown from the bag. While the commonest number is either one or sometimes two, a chanter (as the melody pipe is called) or a chanter and a drone or two, there can be several drones and even chanters, as with the Italian *zampogna*, which has two drones and second chanter, the French *musette du cour* with its multiple drone box, the Scots highland pipes with two, and today three drones, or the Irish *uillean* pipe with both drones and regulators.

How old is the bagpipe? We do not know. Anthony Baines in his *Woodwind Instruments and their History* cites Nero as playing the *aulos* with his arm, and gives other older but less definite descriptions. Maybe this is where Ctesibius, in around 250 BC, got the idea for the organ, as a set of pipes with a bellows? But certainly in many places where shawms are played, we can also find bagpipes or, in some areas, bagpipes and a bagless chanter or hornpipe. Occasionally we see both played together, in Brittany for example with the *biniou* and the *bombarde*, and in the Abruzzi with the *zampogna* and the *ciaremella*, each of them a bagpipe and a shawm played together. There are even places where bagpipes reign alone and where the shawm has dwindled away and vanished. This is particularly true of northern Europe. Save for Brittany, there have been no mouth-blown shawms to the north, approximately, of the Pyrenees across the whole width of Europe

since the earliest days of the Baroque, whereas bagged shawms still abound.

#### The Travelling Shawm

We can trace the distribution of the shawm around the world etymologically, simply from its name. In the Maghrib, whence it came into Europe, a common name was ghaita or raita, and the shawm travelled thence down into Nigeria with the Hausa people as alghaita. It came into Spain as gaita, and into England as the waitpipe – the waits were the town band, the town watchmen long before we used the term for those who sing Christmas carols, and they got the name of waits from the instrument that they played. The Turkish and more eastern Arabic name is zurna, and zurna or zurla is a common term in the Balkans, areas that were once part of the Ottoman Empire. In China it is sona. In Sumatra it is sarune and on some other Indonesian islands serune, and in Burma just hné. No doubt there are other names with similar sound that are beyond my ken, and equally, too, there are other quite different names. I would guess, for instance, that the Indian name of shahnai has a connection with royalty (shah-) and nai (a musical pipe of any sort), and if I am correct there, it emphasises the status of the shawm as the king of pipes or pipe of kings, rather than connecting with zurna.

As the shawm travelled, it often changed its shape, though seldom to such an extent as in Thailand where the  $p\bar{\imath}$  nai seems to be pregnant – the internal bore, however, is the usual expanding pattern. In many areas it acquired a metal bell, perhaps because wood is expensive whereas metalwork is cheap and therefore a narrow wooden tube with a flared metal bell is more practicable

than an expanding wooden bell which requires turning away on the lathe large quantities of wood from the narrow part of the body. Sometimes, as in Tibet, part of the idea is enhanced appearance, with the decorated metal bell of the rgya-gling. Some circumvent the waste of wood by making the bell separately from the body but still of wood, as in México, whither the shawm was taken by the Spanish invaders. In Burma the hné also has a separate metal bell, but instead of the bell being attached to the body as in most other places, the bell flops loosely over the end of the body. In Nepal there are several types of shawm: one is similar to the Tibetan, another to the Indian, and a third, the *mvahli*, is built in a curve, and therefore the wood has to be split into two halves, shaped externally, gouged out, and then glued back together, with a metal bell on the end. Like the Tibetan rgyagling, there are spacers between the fingerholes, though these are plaited from leather rather than jewelled metal rings as they are in Tibet; whether these plaited rings are simplifications of the Tibetan rings or whether they were devised to strengthen the body in case the glue melted or dried out there is probably no way to know; perhaps both answers are correct. These spacers are replicated in the Chinese sona, though simply as waves turned on the wooden body.

Reeds differ widely, also. Picken (*Folk Musical Instruments of Turkey*) describes the Turkish reed in detail both in its making, and botanically as a sub-aquatic rhyzome (p. 356ff). Indian reeds come from a different plant and the Chinese reeds differ again [Fig. 2-1]. What is more important is that these reeds are tubular, rather than made of two blades of cane like those of most European shawms and our oboes and bassoons. Whether the European reeds were always two separate blades as they are today, or whether they also were once tubular plant stems, there is no

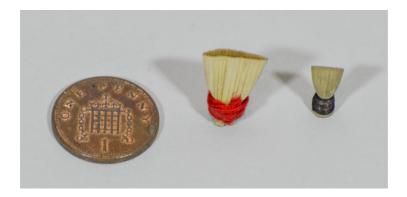


Figure 2-1: Reed for an Indian shawm and for a Chinese *sona*, with an English penny for scale.

way to know, though such fairly clear illustrations that we have of ancient Greek *auloi*, do look as though they were tubular. What we also find in some areas, particularly those of Burma, Thailand, and down that long peninsula into Indonesia, are multiplex reeds, two or even four blades of palm leaf on each side [Fig. 2-2].

In all cases, the reeds have to be bound into a circle so as to fit on to the top of a narrow metal staple [Fig. 2-3]. The tubular reeds are bound about a third of the length from the bottom to form a narrow waist. The upper part is flattened into a small fan shape (often they are only four or five millimetres long in total length) so that the two sides will vibrate against each other; the lower end is then naturally circular to fit on to the top of the staple. The bladed reeds are bound together at the base, again to form a circle.



Figure 2-2: Multiplex reed for a South Asian shawm.

One further anomaly is that in parts of Indonesia, where shawms often come in pairs of tenor and treble, the tenor has a double reed whereas the treble has a single reed, a tube with a slit cut to form a tongue that beats against the rest of its body. The only other place that I know of where a shawm is played with a single reed, is in Hungary, where a goose quill, with a tongue cut in its side is sometimes used instead of a normal Turkish-style double reed. Elsewhere in the Balkan peninsula a Turkish style tubular double reed is the norm.



Figure 2-3: Staple for a shawm, probably Chinese.

The staple is a narrow tube, often only a millimetre and a half or so in diameter, expanding in bore and a couple of centimetres or so long, though occasionally, as in Nigeria, far longer. Usually it is lapped with thread and put straight into the top of the bore of the body, but in some cases, in Tibet for example, it is part of an elaborate structure of staple, pirouette, and two hollow and pierced balls. The Chinese shawms have a much simplified version of this.

The pirouette or lip-plate is common worldwide. Players that I have spoken to in Turkey say that it is only needed when either the player has no teeth or is dancing while he is playing, as is common in many folk cultures, such as Turkey, Greece, and elsewhere. There is always a risk while dancing and playing at the same time, that one may bump into another dancer, and nobody wants a shawm forced back down one's gullet – the pirouette will prevent that from happening.

But the shawm is a high pressure instrument, and keeping the lips sealed round the narrow staple is difficult, for, as noted above, the reed is inside the mouth, not between the lips, and it is much easier to maintain that seal when the lips are pressed against the pirouette. So much so that in some places, such as Java and neighbouring islands, the pirouette becomes a real lip plate right across the mouth, and even extending across the cheeks to support them, like the *phorbeia*, the cloth strap that the ancient Greeks tied across their cheeks to support them and prevent excessive distension. Pirouettes can be made of anything – the Tibetan ones are large discs of silver or brass, but I have seen discs of plastic, bits of tin roughly cut out, and quite often a pierced coin. Sometimes they are soldered to the staple, or rest against a ring support soldered to the pirouette, but often they are held in place just by the conicity of the staple itself.

As stated above, shawms differ in shape and type, but only rarely, so far as I know, does one find different types within the one culture. In Thailand there are at least four types, the  $p\bar{\imath}$  nai, which is indigenous and comes in three sizes of which mine is the treble, the  $p\bar{\imath}$  chawa, resembling the Javanese type, the  $p\bar{\imath}$  mon which derives from the Burmese Mon people, and the  $p\bar{\imath}$  chanai, which derives from the Indian shahnai. I am lucky to have examples of all four. In Nepal, as well, there is more than one type, one



Figure 2-4: Forked head, pirouette, and body of a Moroccan *Ghaita*, III 188.

the curved example described above and another very similar to the Indian *shahnai*. India, being of course a sub-continent rather than a single country, also has many different types.

And there is one special Ottoman type, which is covered in detail in another post on this website, the forked shawm. Briefly, instead of a normal expanding bore, most of the bore is cylindrical save for the terminal bell flare, but the staple is fixed into a wooden fork which fits into the top of the bore, and can usually be easily seen due to being made of a different wood and therefore a different colour from the body of the shawm. This fork forms a brief stepped cone [Fig. 2-4]. The first step is the staple, a brief cone, then a short cylinder through the top of the fork opens out to the second step, the top of the opening coinciding with the first fingerhole. The third step is another opening at the back of the bore, level with the thumbhole. The fourth step is

between the tines of the fork, and the last step is the ends of the tines. All this together forms a stepped cone, just like the very simple Indian one with the bits of tubing stepped into each other, and the fork renders the whole instrument acoustically expanding. Such steps do not need to be circular; as with the second to fourth steps here, they are capsule-shaped, straight-sided but curved at each end, and nevertheless fully effective. These forked shawms are found all over the area of the Ottoman Empire, up through the Balkans, and into the Caucasus at one end and beyond, and right across Northern Africa to Morocco at the other end. One shawm, without a fork, in Laurence Picken's collection is clearly very old but cannot be dated, and this has an expanding bore and a wide bell, very like those shawms that appear in Carpaccio's painting in Venice in the early 1500s, so at least we can be fairly certain that the fork is later than that date, but how much later we do not know. Nor do we know when and where the fork was invented. but a good guess is in the late eighteenth or early nineteenth century, and very possibly in Istanbul or else almost certainly somewhere in Turkey, perhaps in a centre of shawm-making such as Gaziantep.

In Europe, we differ from other peoples because we can never leave things alone; we tinker, we modify, we change. So, instead of just bombard, or tenor, and treble shawms, such as we see in many pictures with a sackbut as the alta band for the *basse danse* and other situations in the later Middle Ages, in the Renaissance we have whole families of shawms as we can see in Prætorius's *Syntagma Musicum*, vol. 2. Most of the shawms appear on his plate XI [Fig. 2-5] but the great bass was so long, about 10.5 of his Brunswick feet (his foot is 285.4mm long), that it appears on the fold-out of plate VI. Including the crook, that's well over three metres in total.

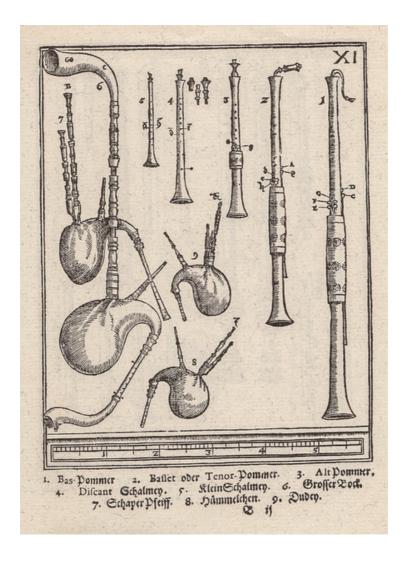


Figure 2-5: Shawms from Prætorius's *Syntagma Musicum*, 1619.

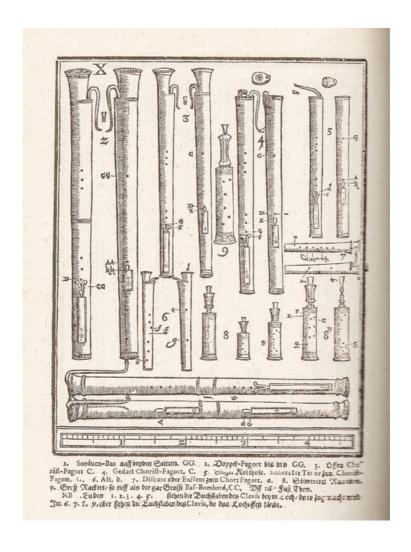


Figure 2-6: Curtals from Prætorius's *Syntagma Musicum*, 1619.



Figure 2-7: Reproduction Renaissance shawm by Laurence Wright, VII 86.

Instruments such as the bass and great bass shawms were so awkward to handle, and impossible for any walking band, that they spawned a whole new family, the curtals or dulcians (Fagott is Prætorius's name for them on his plate X) [Fig. 2-6], where the bore was doubled back into one piece of wood to halve the physical length.

We have no surviving shawms from this period in Britain, but of course many makers have made reproductions for the various Early Music ensembles. Laurence Wright of Llanfairpwll made one for me (VII 86), but since he did not possess a lathe, it was made in two halves and glued together. It looks quite convincing [Fig. 2-7], and may even be a viable instrument. Very recently 3D printed shawms are becoming available from Ricardo Simian of the Aktienmühle Workshop in Basel.

The main question around the shawm in the Renaissance is how loud was it? The non-European shawms that we have been looking at had, as we've seen and shall see again in the illustrations below, the lip-plate style of pirouette, if any, with the reed wholly in the mouth. The result is that very loud sound, full of upper harmonics, that rings within the ear, but the Renaissance Schalmei or *Pommer* had a wooden block pirouette into which the base of the reed was set – the staple did not project above the pirouette as with the exotic shawms but was sunken into it. So did the lips then grip the reed? If so, this cuts out many of the overtones, reduces the volume of the sound, and eliminates the ringing in the ears. This was how David Munrow used to play the shawm with us in the early music ensemble Musica Reservata in the great Italian *Istampitas* and other pieces, he on the shawm and I on the big tabor, and to my ear it sounded like a dyspeptic cor anglais rather than a shawm. But was that perhaps how it really sounded then? We have no way to tell.

It was still a loud instrument, louder than what was really wanted for Lulli's court ballets in which Louis XIV participated in the early Baroque period. Shawms were all very well in the gardens of Versailles or even in the courtyards of the royal palaces such as the Louvre, but dancing outdoors there would be no fun when winter and rain set in. Once indoors even a quieter Early Baroque shawm would have been a bit much. And so the modern *hautbois* was invented in the latter part of the 1600s. It kept

the name *hautbois*, the loud wood, just as did the *fagot* or *basson*, but the instrument changed into a narrower bore, with a longer and more delicate reed, very definitely lip-controlled, and a quieter sound. Which came first, *hautbois* or *basson*, we are unsure, quite possibly the bassoon, though the recorder and transverse flute came before either.

Thereafter, these instruments were moderate enough in sound that they could join with the royal band of string instruments and so create what was to become the nucleus of our modern symphony orchestra, first more tentatively with Rameau and Purcell, then more positively with Bach and Handel, and then finally coalescing into the orchestras of Haydn, Mozart, and Beethoven.

Having surveyed all this history, etymology, and evidence of travel, let us now look at a survey of some of the surviving types of shawm as they are spread around the world. We have no modern shawms in Britain, save for those in a bag, and here of course the Highland bagpipe is known worldwide, as are others such as Northumbrian small pipes, even if the rest of the English bagpipes have died out.

## Shawm Whistles

The simplest of all the expanding-bore shawms are those made simply of leaf, with one leaf folded up to make a double reed, and then that folded leaf inserted into a cone made up of a spiral of leaf-strip or bark, usually pinned at the end by a long thorn or a sliver of wood to prevent the coil from unravelling again. These leaf shawms vary from a centimetre or two in length to 10-15 cm or even longer, and like the reed alone, they do not do much more than squawk, though in skilled hands they can do rather more. Those that are even longer can have fingerholes cut or burned in the leaf or bark. The English name for them is the whithorn, for they are made around Whitsuntide when the sap is rising under the bark and is easily detached. All are ephemeral, for as the bark or leaf dries out, they fall apart, so they are just made for the occasion, and after they disintegrate, a new one is made. I do not have an English one, though in earlier times they used to be made annually by children before similar plastic toys became common.

I do have three foreign examples, two given to me by Laurence Picken from his long tour through the East. This was especially our practice, Dr Picken's and mine, with children's toys and almost any comparatively inexpensive instruments that we picked up, in which we were both interested. I benefited greatly from Dr Picken's world tour, whence came these two instruments as well as many others in my collection, and he also had some from me that I had acquired on market stalls and other such places. His col-

lection is now in the Cambridge University Museum of Archæology and Ethnography. The third whithorn was given to me by Roger Blench, then one of Picken's students.

The first, which is called *pībai-maphrāo* (VI 80), was made by a woman named Mea-khong-mee from Huadong ban village, 25 km from Khonkaen, in Central Thailand. It is a helically coiled coconut leaf 'whistle', pinned at the distal end with a sliver of wood, and the reed is missing. It has no fingerholes and it is only 27mm long. It is now all-but flattened and, at least for the moment, seems to have vanished, and could not be found when we were taking the photographs for this book.

The second was made by Mohammed Yusof bin Mamai, a young boy from Tumpai Kelantan Village, Kuala Lumpur, Malaysia (VI 88). It is a helically coiled leaf 'whistle', larger than VI 80, pinned at the distal end with a sliver of wood. It has no fingerholes, and again the reed of folded leaf is missing.

The third is an *mbauli*, from the Puku People of the Coastal region in the Cameroons (VIII 134). Again it is a helically coiled leaf 'whistle', pinned at the distal end with a sliver of wood. It has no fingerholes, but it still has its double reed of folded leaf. Dr Blench told me that it was played by children. Because they are so small, the two latter are shown together in figure 3-1 with detail of the end view of the Malaysian one.

I have called these instruments shawm whistles, chiefly because they have no fingerholes, but Dr Picken classed them as shawms. I prefer to use 'shawms' for the instruments with fingerholes and which are played for musical purposes rather than just to make a noise for fun — perhaps if I had ever made myself a true English whithorn, I might change my mind on that.

We now turn to the true shawms.

Shawm Whistles 27



Figure 3-1: Two Whithorns from Malaysia (VI 88) and Cameroons (VIII 134), with end-view of the former.

## The Shawm in Europe and Central America

Even though we have none in Britain, we do have a near neighbour, the Breton bombarde [Fig. 4-1]. This is now louder than it once was, for it was and still is used along with biniou, the Breton bagpipe, but the old medium-loud biniou has today given way to a copy of the Scots highland pipe, the biniou braz, and therefore it has had to grow louder to match it. I have two of these: the first (I 174), on the right, is a cheap instrument, made in Rennes, with plastic ferrules and bell ring, which I bought in a music shop in Quimper along with a tutor for it. My wife and I had toured Brittany back in the early 1960s, hoping to find an older bombarde, and possibly even a biniou, but without success, so this was the best I could then get. The other (IX 94), on the left, which I bought from a stall at one of the Early Instrument Exhibitions in London, is of better quality without plastic. Each has seven fingerholes, the former having the lowest hole covered by a key whereas the latter has the lowest hole offset for the right little finger.

The Portuguese shawm is all-but extinct, surviving only spasmodically today and only in the mountainous areas of the north of the country, though there are some signs of a revival, but in Spain the shawm still flourishes. In Euskal Herria, the Basque country, it is still so popular that at least one maker, Jose Manuel Agirre of Tolosa, is making the *dultzaina* (XII 146) of a black resin plastic with non-ferrous white metal ferrules at each end and another ferrule between the lowest fingerhole and the 2 lateral vents on the bell [Fig. 4-2]. A chain links the pirouette, shown inset as a detail,



Figure 4-1: Two Breton Bombardes, left IX 94; right I 174.

which is pierced with a diamond-shape hole to go over the reed, to the end of the bell-mount, which is saw-toothed and folded in over the end of the bell. There is a thumbhole and seven fingerholes, the lowest of which is offset for the right little finger. The staple is thick, sharply conical, oval in section, and thickly lapped with cork at the lower end to fit into the socket at the top of the bore. The reed of *arundo donax* is shaped like that of a bagpipe chanter and it is scraped rather like that of a bassoon, with corner



Figure 4-2: Basque *Dultzaina* by Jose Manuel Agirre of Tolosa, XII 146.

nicks. I watched Mr Agirre put the whole instrument together from parts taken from a series of boxes, all prefabricated, plus a zipped nylon gig bag and two reeds in a reed case. He also makes tambourines, tabors, and side drums to his own design and processes, and a *txirula*-like pipe, and he plays in a folk group and gave me a CD and cassette of their performance.

I have another Basque shawm (XII 94), which is probably a Navarrese *gaita* [Fig. 4-3], with the same fingerhole distribution



Figure 4-3: Basque Gaita, probably from Navarre, XII 94.

but this time all of wood. It lacks its staple and reed and it was bought in an antique shop at Irún, near the Franco-Spanish border, by Sabin Bikandi Belandia, then the town piper of Bilbao, who gave it to me in exchange for another instrument; it was also he who had taken me to Mr Agirre's workshop.

Moving to the other side of northern Spain, an important Catalan shawm is the *gralla sec* (XI 170). This is played when the human towers are being created and also in processions with



Figure 4-4: Catalan *Gralla sec* by Xavier Orriols of Vilanova, XI 170, with detail of the reed.

the *gegantes*, those giant figures that are supported by men on stilts. There is also a *gralla dolç*, a quieter version with four keys, but the *gralla sec*, which is used for all occasions, is the more important [Fig. 4-4]. This one was made and given to me by Xavier Orriols (also Aurriols) of Vilanova, a small port southeast of Barcelona. It is stamped Palamerar (his trade name) / [leaf pattern] / Vilanova. There is a thumbhole and six fingerholes and there are two white-metal bands round the bell and a

ferrule round the reed socket. The reed is unusual in that it is spade-shape [shown inset] rather than the usual V-shape and it is also larger than most other reeds. It is carved from arundo donax in two separate pieces which are then tied together, rather than being gouged in one piece and folded over and then separated like an oboe or bassoon reed. The staple is of brass, quite thick, and it is sharply conical with a thick cork lap at the base, hence the very wide reed socket at the top of the instrument. The gralla sec is the characteristic shawm of the north of Catalunya and up into Andorra, whereas the dolçaina of the Pais València is that of the south. These are the standard folk and semi-professional instruments, whereas the tiple and tenora of the sardana coblas, which are shawms with oboe-like keywork, are the instruments of the professional and commercial bands. As well as the gralla, Xavier gave me a spare reed (not on a staple) and two pages of measured drawings of how to make the reed.

I have two examples of the *dolçaina* of the Pais València [Fig. 4-5]. The first, on the right, is a cheap example that I bought from Michael Morrow (I 186), whereas the other, on the left, is of much better quality (XI 100). It was presented to me, after I gave a lecture there, by Vicent Torrent. Why these, and the Basque *dultzaina*, should have this name is a puzzle, for their sound is the very opposite of dulcet – *gralla* apparently means jackdaw and that is a far more appropriate name for a shawm! The *dolçaina* is slightly shorter than the *gralla* and has a more widely expanding bore; the reed staple, which is made of quite thick brass, also expands more widely. Each *dolçaina* has a thumbhole and seven fingerholes with the lowest offset to the right. The reed of I 186 is of a softer material than the *arundo donax* of the *gralla* but it also is made from two blades rather than folded and cut, whereas



Figure 4-5: Two *Dolçaina* from Pais Valencia, left I 186; right XI 100.

those for XI 100 are of *arundo donax* and look like large oboe reeds.

It was from Spain back in the sixteenth century that similar shawms went to the Americas with the Conquistadors. There they were copied by the local peoples, as were other European instruments, and they are still made and played there today. The copies today are rather more roughly made than the Spanish, and while all the previous examples (except for the prefabricated *dultzaina*) were turned on a lathe and the bore reamered, these appear to



Figure 4-6: Mexican *Chirimía* from the Isthmus of Tuantepec, V 186.

have been hand carved, at least so far as the bell of the next shawm is concerned, for knife-marks can be seen on the interior. This *chirimía* (V 186) came from the Isthmus of Tuantepec, México [Fig. 4-6]. Judging from the width of the staple socket, the staple, which is missing, must have been quite long. The bell was made separately and the six fingerholes appear to have been burned through the wood. It was bought from Maurice Byrne who had bought it from a stall in the Portobello Road in London.



Figure 4-7: Mexican Chirimía from Oaxaca, VII 234.

The next is even rougher. It came from Oaxaca in southern México (VII 234). The wood is also quite rough and the bore is barely expanding save for the last 30mm or so of the bell [Fig. 4-7]. Again the staple, which must have provided the necessary expansion, is missing. Both these shawms are given a location here by comparison with illustrations of others which are of known origin, and each appears to be of some age and to have been well used. This latter one has seven fingerholes, all burned



Figure 4-8: Small shawm, probably from Italy, VII 232.

in, and two vents near the bell. It was given to me by Tony Bingham, as was the next instrument.

An unlocated shawm (VII 232) might be Italian, since everything else with it in a box was certainly Italian save for the previous shawm. However, I have never seen anything that resembled it, so the location remains uncertain. It also is quite roughly made and it is hand-carved, not lathe-turned, with a brass collar over the

proximal end which is sharply shouldered at that point [Fig. 4-8]. The plane of the bell end is not at right angles to that of the body length and it is made of black-painted white wood and it has six fingerholes, which are not bored in a straight line. The fingerholes are not drilled nor even burned, for each hole is conical through the wood, and it is clear that they were bored with a knife. A copper wire was twisted round the body in a groove between the third and fourth fingerholes before the instrument was painted, perhaps by someone who thought to hang it up. If that were so, then the paint is unlikely to be original, and the instrument is somewhat of a mystery all round!

But the next is certainly Italian, a normal *ciaramella* [Fig. 4-9], such as is played with the bagpipe zampogna for the traditional music of the Abruzzi. These groups of bagpipe and shawm come down into Rome at Christmas time and play on street corners. This shawm (IX 34) has a high thumbhole (i.e. higher than the topmost fingerhole, whereas thumbholes are normally between the uppermost and second fingerholes) and eight fingerholes, the lowest of which is likely to be a vent, plus one vent lower on the body and two vents on the bell. This high thumbhole position is typical of bagpipes, also. The bell vents appear to be additions for they look as though they were knife-cut. All the holes point downward from the inside towards the outside. The bell is a separate section and it is attached to the body with a very coarse hand-cut screw thread. It was bought from a stall at the Early Music Exhibition one year, and Jonathan Swayne kindly provided me with two suitable reeds for it.

The *zampogna* has a very large bag with two expanding bore chanters and usually two cylindrical drones, all with double reeds, though there are also single-reed versions, and children play toy versions of these with each pipe, mouthpipe, chanter, and drone,



Figure 4-9: Italian Ciaramella, IX 34.

all of reed, set into a rubber balloon. Its name derives from the Greek *sumponia* and this is why some translations of the book of Daniel in the Bible include a bagpipe in Nebuchadrezzar's orchestra, for each list of instruments there includes a slightly different Aramaic version of that word. Handel was transcribing the sort of music that they play in his 'Pastoral Symphony' in *Messiah*, though his version is much quieter than the sounds of the original street music.



Figure 4-10: Modern reconstruction of a Hungarian *Tárogató* by József Bige of Budapest, V 192.

Moving further eastwards, we come to a somewhat bogus version of a shawm. The Hungarian *tárogató* was a traditional shawm that was deemed to be so exciting an instrument that its use was banned under the Austro-Hungarian monarchy for fear of uprisings against the Austrian hegemony. Schunda provided a nineteenth-century substitute, a wooden soprano saxophone with a single reed mouthpiece, which is still widely used in traditional Hungarian bands. With the instrument here (V 192), invented in

the second half of the twentieth century, József Bige of Budapest has devised something much closer to an oboe, with a reed exactly like that of the oboe on a staple 80 mm long. There is a high thumbhole and seven fingerholes of varying diameters, spacing, and alignment, and one dorsal vent [Fig. 4-10]. The thumbhole is lined with a tube that projects into the bore, like that of a clarinet, to avoid being clogged by moisture running down the bore. The sound, as one might expect with an oboe-type reed formed on a very long, narrow, cork-lapped, metal staple, is also oboe-like, and I doubt whether it was ever very successful. It was bought, out of interest in a peculiarity, in a music shop in Amsterdam.

Another oddity (XIV 10) seems to be a form of folk oboe, and the separate bell is oboe-like in shape, with a vent on each side. There is another vent immediately above the bell. Round the inside of the bell is the mark Couserans in ink, and another inked mark Renat, written vertically, neither of which mark is otherwise known, though Couserans is a name common in southern France, towards the Pyrenees. The instrument [Fig. 4-11] is about the size of an oboe and it is possible that it is a tenor to a form of oboe-like southern French shawm that is used in that part of the world, astride the Occitan Franco-Spanish border country, perhaps as some semi-urban equivalent of the Catalan tiple and tenora of the sardana band. The instrument is made of pale brown wood, probably boxwood, with decorative ringturning at various points. There are six fingerholes, without a thumbhole, plus the three vents mentioned above; all the holes appear to have been burned or to have been drilled at such speed that the drill bit has scorched the wood. The top of the bell joint has a brass ferrule, but the joint between the two hands has none; just some turned rings; each joint is a normal tenon and socket. It



Figure 4-11: Perhaps an Occitan tenor shawm or folk oboe, marked Couserans, Renat, XIV 10.

was bought at the Gardiner Houlgate auction on 20 March 2009, lot 120, again for interest in a peculiarity.

## The Shawm in the Ottoman Empire and Africa

Moving east into the Ottoman Empire area, we come to a pair of far more traditional instruments, a pair of zurla from Skopje in what is now called North Macedonia, one of the republics that for a while formed Yugoslavia. These (IV 160 and 162) are tenor and treble, a matched pair of unstained wood, each with a sheetmetal pirouette soldered to the staple and each with fragments of a broken reed of the Turkish type [Fig. 5-1]. These are forked shawms, with a cylindrical bore save for the bell, and a wooden fork in the top which renders them acoustically expanding, as has been briefly described above, so that they overblow octaves. Each has a thumbhole and seven fingerholes and seven small vents, often referred to as devil-holes, and the fork reaches down to the third fingerhole. These are old, well-used instruments and they were bought from Vasily Hadjimanov of Skopje, after he visited us in London in 1967 following the IFMC Conference of that year in Ostend. The only difference between the two, other than size, is that the interior of the bell of the tenor has been painted black. They are played together for dance and other music, with the accompaniment of the Turkish-style drum tupan, in the normal Ottoman manner of heavy beater on the strong beats and light beater on the weak beats, a style of drumming that is imitated in the *alla turca* music of our Classical period, for example Haydn's Military Symphony, Mozart's Il Seraglio, and Beethoven's Ninth.

This is our first step into the Ottoman world, for North Macedonia is still predominantly part of the Ottoman Muslim world,



Figure 5-1: Two Macedonian *zurla* from Skopje, IV 160 and 162.

and we move from here into Turkey, where the device of the forked shawm probably originated, and thereafter all along the Mediterranean coast of North Africa to Morocco.

I bought two Turkish *zurna* (XIV 8a and 8b) at the same Gardiner Houlgate sale as the Couserans instrument above, lots 118 and 119; the two look as though they had both been made by the same maker and appear to be brand new [Fig. 5-2]. The first is of dark wood, with the fork either jammed or glued in place, and I



Figure 5-2: Two modern Turkish *zurna*, XIV 8a with fork inset and 8b.

have not tried to force it to move. It has a thumbhole and seven fingerholes and there are five very small devil holes on the bell, three of which are frontal with one on each side. There are some incised rings on the body and it has quite a wide bell. The second is similar, though it is of paler wood and slightly larger. The fork can be moved and it has the same number of fingerholes, though there are only four devil holes, two of them frontal and one on each side.



Figure 5-3: Two modern Turkish-style *zurna*, perhaps from Kurdish Iraq, XI 36a and 36b.

Two more Turkish-style shawms (XI 36a and 36b) are also brand new. They were bought for me by Captain Steve Gaherty of the US Air Force (his wife, Cathy, was our Music Faculty Librarian; hence the connection) while he was supervising arrangements for feeding Kurds in Northern Iraq after the Gulf War. Each has the fork (36a's is shown), each has a staple but no pirouette, which he was told was to be made by the player, often from a coin, if he needs one [Fig. 5-3]. Each has a thumbhole and seven fingerholes and only three very small devil holes, in a straight frontal line. Each has a smooth curve to the bell and a slight flare to the



Figure 5-4: My first Turkish zurna, VII 22.

head. 36a is slightly the larger and of paler wood whereas 36b is darker and smaller. They are not a pair.

My first Turkish shawm (VII 22) was bought for me by Tony Bingham as a gift in a street market in Istanbul. It is of apricot wood, and is painted black externally [Fig. 5-4]. Like all Turkish *zurna* it has a much sharper bell curve than the Macedonian *zurlas* above and than the North African shawms, to which we will come.

It has the fork, a thumbhole and seven fingerholes and there are seven devil holes, with all the holes drilled horizontally through the wood, again as is usual in Turkey. Hamdi Ataoglu kindly bought me a staple for it, with a yellow plastic pirouette, and some reeds on my behalf when he was in London, for there are Turkish musicians living and playing there.

As in so many places, the shawm is one of the main melodic instruments of the culture for outdoor music of all sorts, and especially for dance music and festivities of all kinds, including weddings. It is also the chief melodic instrument for military bands (other than the more recently acquired European-style military bands), and its history in the area can be seen for many centuries in the Persian paintings of military occasions.

Travelling westward the next shawm is a mizmar from Assiut in Egypt (VIII 36). This is a much older instrument that has been well-used in the past [Fig. 5-5]. It has the fork, thumbhole and seven fingerholes, all fairly rough, and nine devil holes, even rougher, in three lines of three. The body is covered with a leather sleeve, which must be from an animal's tail or leg, for there is no seam, with a brass collar, crudely soldered at the back, covering the top of the sleeve. Below the sleeve there is a plated metal ring and then a narrow rubber ring. A blank plated metal plaque is nailed to the bell. A metal (probably aluminium) garland, over the end of the bell, covers a crack which has been glued and stapled; it is very possible that the leather sleeve also covers a crack, for there is no other reason for its presence. It was bought for me by Gwen Plumley in Assiut, and she also bought me seven spare reeds in a tin in Cairo "from the players in the folk band at the Meridien Hotel".

Regrettably I have no shawms from Libya, Tunisia, nor Algeria, but I have a number from my visits to Morocco, a country



Figure 5-5: Egyptian *mizmar* from Assiut, VIII 36, with detail of fork.

that is rather safer for Jewish visitors to go to than are those other three countries.

The first Moroccan *ghaita* that I got (III 188) was in an antique shop in Ostend, during the IFMC Conference there in 1967. It has a wide pirouette of bone with a circular hole in the centre and lateral slots on each side of the hole to pass over the reed, but the staple does not have a pirouette rest; its position is fixed by the conicity of the staple. There is a thumbhole and seven



Figure 5-6: Moroccan *ghaita*, bought new from the maker in Agadir, IX 188.

fingerholes and there are seven small vents in the bell, all of which are sloping downwards through the wood, downwards from inside to outside, in contrast with the Turkish style where they are drilled horizontally through the wood. There is a brass dentated garland on the end of the bell. The instrument is now on loan in the Bate Collection and it is exhibited there 'exploded', with the fork and the pirouette removed and displayed beside it, as we saw earlier in figure 2-4.



Figure 5-7: Moroccan ghaita, much older, VIII 44.

That *ghaita* is rather more elegant in appearance than my other Moroccan shawms, for it is made from polished brown wood, whereas all the others are stained blackish. All of my other Moroccan *ghaitas* have these same thumb- and seven fingerholes and seven devil holes, arranged in a horizontal row of three, then a single hole and then another row of three. One (IX 188), was bought new from the maker in the *shuk* in Agadir [Fig. 5-6], and a second (VIII 44) is much older. Its bell is covered with a ferrous tin-plate garland to seal a crack, which is further sealed with



Figure 5-8: North African *ghaita*, perhaps not Moroccan, XII 118.

wax in the interior [Fig. 5-7]. The inside of the bell was clearly knife cut rather than lathe turned. It came from the detritus of the World of Islam Exhibition and was marked Morocco 33. It was bought at Sotheby's (20/11/1980, lot 198), who lost the staple and reed during the sale; it had been there when I viewed it but had vanished between when I saw it and bid for it and collected it after the sale, and has now been replaced. A third (XII 118) is rather more slender and was found uncatalogued so that I have no



Figure 5-9: Three of these shown together for comparison.

memory of where I got it. It may not be Moroccan because the fingerholes are drilled horizontally like the Turkish, not sloping down like the other Moroccan ones, but on the other hand the bell flare is quite slight, like the Moroccan, not sharply flared like the Turkish, but with a terminal 'bead', which is shown by itself in figure 5-8. A bit of a mystery, and perhaps it is from a different North African country. It has a thumbhole, seven fingerholes, seven devil holes, and quite short tines to the fork. All three of these are also shown together for comparison in figure 5-9.



Figure 5-10: Moroccan *rhaita* from Jajouka in the Rif mountains, with detail of top, XIV 94.

The fourth (XIV 94) was found on the Oxford Market and was sold to me by a woman who said she had bought it from the village of Jajouka (aka Joujouka) near Ksar-el-Kabir in the Ahl Srif mountains of the southern Rif mountains of northern Morocco. This is the home of the Master Musicians of Jajouka, a well-known *rhaita* ensemble of trance music, one of whose cassettes of such music I have had for many years, with the extraordinarily exciting sound of massed shawms. Instead of a fork it has



Figure 5-11: Moroccan quieter *ghaita*, bought in Essaouira, XII 294.

a wooden insert set into the head of the instrument, slightly too tightly so that it has split the head with a crack [Fig. 5-10 and detail of top]. It is impossible to see what effect the insert has, but it must provide some conicity to the bore to permit it to overblow octaves. The fingerholes appear to be unfinished – the inner ends of most are slightly hairy, and it may be that the head split before all else was done and therefore it was never completed.

The last (XII 294) is different. It has a much narrower bell than usual, and it was said by the vendor, in the *shuk* in the Old City of Essaouira in Morocco, to be used as a quieter shawm. It has the fork and the usual number of fingerholes and vents, and is made of very light-weight wood, stained dark brown, and the lathe-turning of the head is almost as though to disguise the presence of the fork. There is also a European-style baluster turning at the bell [Fig. 5-11]. The pirouette soldered on to the staple is a French brass coin dated around 1968 of an unknown number of centimes. It was bought in April 2002.

When the Fulani peoples, who include the Hausa and other Muslim tribes, passed down around the eighth century through Morocco and Mauritania into West Africa, they introduced there their long metal trumpets, the kakaki. These trumpets were then adopted in Morocco, where they are called alnafir; and it was from there that they travelled up into Spain, as the añafil, and thence throughout Europe. We do not know whether the Fulani also introduced shawms there, ghaita and rhaita, or whether they acquired them there. Certainly the Hausa and similar Muslim tribes are one of the few West African peoples who do play shawms, as do so many other Muslim peoples around the world, and they call them by the Maghribi name of algaita. Because the body is covered by leather it is difficult to ascertain how they are made; some of mine appear to be in one piece, upper body and bottle-bell, but others feel through the leather that they may be sectional. The material of the body looks to be more fibrous than most woods and may perhaps be palm wood, or possibly even a section of a bottle-shaped calabash.

My oldest (I 192) is covered in red leather. There is a thumbhole and four fingerholes, with the thumbhole exactly opposite the uppermost fingerhole, so that they are bored straight through the



Figure 5-12: Three Nigerian *alghaita*, left XII 120; centre V 182 from Zaria City, and right an older example I 192, missing its staple.

front and the back. There is a small amulet under the leather at the top of the bell. The bore is all knife-carved, not lathe-turned. There should be a long metal staple with a pirouette, such as can be seen with two of the others, but that staple is missing from this shawm. An old label inside the bell is marked Evan Thomas Collection, no. 759; I bought it from Page Phillips, in Kensington Church Street. The only Evan Thomas Collection that I have been able to trace is of correspondence between the Admiral Sir

Hugh Evan-Thomas and Captain Scott on polar matters, and this seems to be an improbable source for this instrument.

It is shown on the right and beside it, in the centre of figure 5-12, is a much more modern example (V 182), complete with its long staple and pirouette, which was made for me by the Emir of Zaria's *algaita*-maker through the kindness of the Gidan Madauchi Zazzau Ibrahim Bagudu of Zaria City. The thumband fingerholes are the same as on the previous example, but are much further down the body than on that instrument, and also this one seems to be made of wood rather than of palm or gourd, and only the upper part of the body is leather-covered. The holes are burned rather than drilled, and this may also have been true of the previous *algaita*. A Madauchi's position in relation to the Emir is roughly the equivalent to that of a Vizier to the Caliph in the legends of the Arabian Nights, and I was introduced to this one by the kindness of David Ames. The Madauchi Ibrahim became the source of a number of instruments in my collection.

Another *algaita* (XII 120), shown on the left in figure 5-12, was acquired a number of years ago but was not then catalogued because it was very badly wormed; I sealed it into a polythene bag for safety and later froze it to kill any remaining insects. It has five fingerholes and no thumbhole, all rough cut through leather and wood. The top 71mm is a separate piece of wood and includes the uppermost fingerhole, which is, as usual, well separated from the others; the lowest is blocked with a stopper made of a piece of gourd. The body is covered in brown leather, the bell in red leather. A long metal staple, also leather covered, is attached to the body by a leather ribbon. The greater length and the different fingerhole pattern suggests that this may not be Nigerian but might come from a neighbouring country with a similar Muslim culture, or else possibly from a different Emirate also in Nigeria.

## The Shawm in South Asia

I regret that I have no shawms to show from Central Asia — I have nothing between Turkey and the Indian sub-continent and Tibet, although there are many examples to be found in the Middle East, such as Syria, Iran that once was Persia, and Iraq, and all over the Caucasus and beyond, showing that there is a continuum of shawm playing right across Asia. Many examples can be seen in the pages of the Russian *Atlas of Musical Instruments* by Vertkov et al. Indeed, we know that the shawm as we know it in India today was introduced there by the Persian Moghuls who conquered all that territory.

Many years ago I bought three Tibetan shawms, *rgya-gling*, (II 124a, b, and c) from Paxman, the french horn maker, when he was moving out of the old shop under the post office in Gerrard Street, Soho. Why he should have had these shawms among all the old brass instruments that hung on the walls all round the shop, I have no idea; perhaps, because the staples were missing and they had wide metal bells, he may have thought that they had been played with a brass mouthpiece! They are old instruments, probably dating from the late nineteenth century. IIa and b are a pair; each has a heavily-worn thumbhole and seven fingerholes, with a brass ring between each hole, and these rings are set alternatively with a coral and a turquoise. The body is wood with a cast brass ornamental ferrule round the head and a separate brass bell with cast brass and copper decoration similar to that of the long Tibetan trumpets. The bells of each are badly brass-rotted (de-



Figure 6-1: Two Tibetan *rgya-gling*, left one complete, IX 28 with detail of staple, and another much older, missing that part, II 124a.

zincification), and that of a) was cleaned and experimentally protectively waxed by Harris Plating of Kings Cross [Fig. 6-1 with the complete example listed below]. It has been suggested that one of the prime causes of dezincification is the use of coal-gas lighting and heating, and certainly gas was much used in Paxman's workshop for soldering, and perhaps originally for lighting. The bells of these Tibetan *rgya-gling* are made in one piece with an almost imperceptible longitudinal hard-soldered meander joint.

The elaborate medial cast-copper flange round the middle part of the bell is purely decorative, though it would seem to be ancestral to the functional medial flange of the Chinese *sona*; perhaps the bells of Tibetan shawms were also in earlier times made in two sections, upper and lower, with the flange protecting the joint. The bodies are set into the bells, sometimes with wax to keep them airtight, and they are inserted into the bell from below so that they are also held in position by friction, as are the Chinese. These shawms are the main melodic instruments of the Tibetan monastic ensembles and they are always played in pairs.

The third of the ex-Paxman *rgya-gling* is in rather better condition, though again missing its staple and pirouette. The fingerholes are worn, but perceptibly less so, and the cast medial flange of the bell is slightly less obtrusive. There is a chain joining the top ferrule of the body to the bell, which is missing from the other two. It is close enough in appearance to the other two to make it unnecessary to illustrate it.

However, one other *rgya-gling* (IX 28) is much more worth showing, for it is complete and is a rather more recent example; it was bought from Tony Bingham [Fig. 6-1 with II 24a above and with its elaborate staple inset]. It is in much better condition than the other three, and it still has its staple, with the usual two large pierced silver balls and the very ornate pirouette, though all the jewels, which originally must have been larger than those of the other three, judging from their settings, are missing from the rings between the fingerholes. The second ring from the top is pierced for the thumbhole, unlike the three previous shawms, which manage to fit both the thumbhole and the next fingerhole between two rings. The balls, the pirouette, and the bottom plate are all loose on the staple, as is usual on the Tibetan instruments, but unlike those of Chinese shawms, which presumably were also



Figure 6-2: Nepalese *mvahli*, shown obliquely from front with inset of thumbhole, X 56.

loose in earlier times but are nowadays always soldered up solid. The staple is chained to a ferrule round the top of the instrument, and two further chains from the ferrule run loosely to two points on the bell. The bell is silvered with brass decoration including a third ring at the distal end, which is rolled over the end inwards to strengthen the end of the bell.

There are some quite different shawms in Nepal. One type is much the same as the type of *shahnai* that is used in Indian classi-

cal music, but another is quite different. I was able to buy both of these two types from Tony Bingham. The *mvahli* [Fig. 6-2 front and back] is clearly a derivative of the Tibetan *rgya-gling* but it is entirely differently made. It has rings between the fingerholes but these are of plaited rawhide, not of metal, and it has a much smaller metal bell. But it is sickle-shaped and it is made by splitting a piece of wood in half, gouging it out, and reuniting it with a waxed seam; the leather rings also would help to keep it together. It should have a staple and pirouette, but these are missing from my instrument (X 56). It has a high thumbhole on the convex side, above the highest ring, and there are eight holes on the concave side. The upper seven of these holes are very well worn and therefore must be fingerholes, but the lowest hole has no traces of wear, telling us that this is a vent rather than a fingerhole.

The other type of shawm in Nepal (X 50), is slightly heavier than the modern Indian *shahnai*, shown beside it [Fig. 6-3 right]. The body is of thick wood, with a separate cast brass bell with four decorative ridges, held on to the body with red cloth lapping. The top of the body is slightly reduced, with a very shallow step just above the first fingerhole, which is evidence that it must originally have had a long metal sleeve over it, like that of the Indian *shahnai* shown beside it. The long copper staple is topped with a quadruplex reed of palm leaf or similar plant, with two pieces of leaf on each side of the windway. There is no pirouette. There are eight holes, the upper seven of which are fingerholes and the lowest is a vent. There is no thumbhole.

The modern Indian *shahnai* shown beside it on the left (V 48), is of turned, stained, and varnished wood, with a long white-bronze ferrule at the proximal end such as I suspect was originally fitted on the previous instrument, and a separate decorated metal bell. There are seven fingerholes, with no thumbhole and



Figure 6-3: Indian *shahnai*, V 48, and right an older Nepalese shawm similar to it, X 50.

no vent, and it has a long staple with a large reed of flattened plant stem, and three spare reeds in a wooden holder. A metal mandrel for reed making, or for opening the stem of a flattened reed, is attached to the staple. This is the sort of *shahnai* that is used in north Indian classical music today, and also in much Indian film music, by players such as Bismillah Khan. It was a new and unused instrument, bought for me in a Bombay market (now Mumbai) by Professor Ronald Dore. One can hear clearly



Figure 6-4: Two Indian *shahnai*, left I 184 perhaps from Kolkata, right brightly coloured, V 208.

in recordings of Indian classical music that the reed is nowadays is held by the lips, like that of our oboe. This provides for much more subtle tone colour and tuning and parallels in musical development the changes of technique in our Renaissance period and those between shawm and oboe in our Baroque period.

There is a variety of other forms of *shahnai* in the Indian subcontinent, and unless one knows exactly whence they come it is difficult to know whether any individual instrument is from India, Pakistan or Bangladesh; hence the use of 'Indian sub-continent'. One (V 208) that I found in an ordinary Indian shop, Bharneeta, selling clothes and other material in Hampstead Road in London, is very highly coloured, shown on the right in figure 6-4. It is of stained dark wood, and it is decorated with carved and painted rings, pink, yellow, green, and mauve. It has a separate wooden bottle-bell, eight fingerholes, the lowest probably a vent as above, and a long staple. Another (I 184), of plain wood, shown on the left, is in one piece with its bottle bell. The bore is quite narrow and there is a deep well for the long, narrow brass staple, which carries a wooden pirouette. It has a thumbhole and seven fingerholes, thus differing from those above. A very similar instrument in Anthony Baines's collection came from the Kolkata (ex-Calcutta) area of West Bengal, so this may perhaps be the origin of mine also. I have no record of where I got it. The two are shown together for contrast.

Some south Indian shawms are very much larger. South Indian, or Carnatic, music is very different from the North Indian tradition. North India was heavily influenced by the Persian Moghul invasion in the early sixteenth century, whereas Carnatic music represents much of the earlier, pre-Moghul strata of musical forms. Both depend on the  $r\bar{a}ga$  system, and to some extent it might be fair to say that although the two  $r\bar{a}ga$  systems vary between the two styles, it is the instrumentation that varies the more radically, and especially with the Carnatic stress on vocal performance of music. I 190, on the right in figure 6-5, is thought to be a  $n\bar{a}gasv\bar{a}ram$  from southern India. It has seven fingerholes and five vents which are arranged with two on each side and one in the centre. It should have a metal bell similar to that on the instrument on the left (the one bell fits either instrument and is shown on both!), which is a drone shawm or *sruti* (I 178). They



Figure 6-5: South Indian *sruti* (drone shawm) I 178, and right *nāgasvāram*, I 190, sharing the same bell.

were bought together from Page Phillips in Kensington Church Street and they are therefore shown together. The *sruti* has two rough-cut holes low down on the body so that the drone pitch can be changed, using wax to stop the hole or holes that are not required, and there are two lower lateral vents immediately above a heavy turned baluster; the top of the body also has heavy decorative turning. The bell is of heavy cast brass which appears to have been painted gold. Although the bore was clearly reamed, the bottom of the bore is pentagonal in shape.

The drone is an essential feature of Indian music, both North and South, giving a continual pitch referent, with the result that tuning is far more precise than in Western music — ask anyone to sing a scale slowly, first alone and then referring each pitch to a tonic drone, and the second is always better in tune even for the 'non-harmonic' (non-common chord) pitches, though of course resulting in pure intonation or non-tempered tuning. In addition, as Nazir Jairazbhoy has pointed out in his book on Rāga, the presence of the drone creates tension, for the nearer music gets to a consonance, the more dissonant it becomes until finally it falls off the edge of the cliff, as it were, into consonance. It is dissonances that keep music moving, travelling always towards consonances, which are positions of rest, because dissonances are always seeking resolution, and it is the drone, steady against the melody, that provides both the dissonance and the tension that finally resolves and relaxes into consonance.

My last Indian shawm is a modern oddity, a *shahnai* with a windcap that functions like that of a crumhorn (VIII 208), to keep the reed well away from any moisture from the mouth. The windcap here clearly derives from that of the Highland bagpipe practice chanter, which has a similar shape, and the fingerhole distribution and sizing is similar to that of the bagpipe's chanter. The Scottish Highland bagpipe is now widely made and used in India, to the extent that it has displaced most of the indigenous types of bagpipe. The windcap on this instrument is a different wood from that of the body [Fig. 6-6 with and without the windcap]. With a little retuning of the fingerholes, these instruments proved popular with early music groups in Britain in the 1970s as treble windcap shawms, which used unjustifiably to be identified with the term *rauschpfeif*. It has a high thumbhole and seven fingerholes and two unusually wide lateral vents – vents are



Figure 6-6: Modern windcap *shahnai*, shown with and without the cap, VIII 208.

usually quite small, 4 or 5mm or less, but these are 9mm in diameter. Because the reed is within the windcap and is therefore inaccessible to any lip control, the sound is that of a true shawm, unlike those reproduction renaissance instruments which were described above. I can remember at least one of our performances with Musica Reservata when we used a pair of these instruments, with the BBC sound engineers frantically turning down the volume controls because this was the opening work of a broadcast



Figure 6-7: Singhalese horanāva, V 188.

Queen Elizabeth Hall concert. They had not heard it in rehearsal because they had been late in setting up.

South of India is the island of Sri Lanka, which we used to call Ceylon. The *horanāva* (V 188) has seven fingerholes and has a black-painted wooden body, slightly warped front to back, with yellow painted rings and other decoration between each fingerhole. It has a separate brass bell and a brass staple. A metal ring on a loose ferrule round the top of the body and another on the

bell suggests that there may once have been a chain linking the two [Fig. 6-7]. This *horanāva*, and all others that I have seen, are much smaller than the Indian *shahnai* but this instrument, at least, is clearly closely related to it.

## The Shawm in South-East Asia and Indonesia

The Burmese shawm *hnè* is somewhat different. As with many other shawms that we have seen here, and will also see below, there are two sizes, treble and tenor, and mine (X 54) is a hnègalei, the smaller of the two [Fig. 7-1]. It has a red-painted wooden body with a loose brass bell that is held on to the body only by a cord, traditionally red in colour; mine was missing the cord, but I was able to replace it with a suitable substitute. The bell, when the shawm is played, just flops around loose, hanging from the edge of the bottom of the body. The bell has a medial flange soldered on over the joint, like that of the Chinese sona to which we will come in due course, and a finely soldered longitudinal meander joint. There is a thumbhole and seven fingerholes. The brass staple is short and carries an octoplex reed (inset in the photo), made of four segments of toddy palm leaf on each side of the windway. Certainly John Okell's field recordings (copies of some of which he gave me) are evidence that the multiplex reed, which he said was soaked in green tea for half an hour or so before use, and one of which he gave me, is no hindrance to a fluent playing technique and a wide range, for some of his recordings are of non-stop playing with circular breathing over a two-octave compass for an hour or more. While the musical traditions of the whole of South-East differ from one peoples to another, as one would expect the Burmese musical ensemble is part of the wide-spread tradition throughout the area of wind, string, and multi-percussion orchestras that may seem to culminate in



Figure 7-1: Burmese *hnè-galei*, with detail of octoplex reed, X 54.

the Javanese classical court gamelans. There are gong-chimes and especially in Burma, drum-chimes, both arranged in circular frames with player seated in the centre of the circle. There are also time-keepers, the Burmese being small cymbals and woodblock marking the off-beats. Musical time is normally what we would call 4/4. One player was heard to say, 'Yes of course we play in triple time, 1,2,3,-,1,2,3-'. This shawm is one of the many that were bought from Tony Bingham.

The loose bell of the *hnè* is something of a mystery; it seems to relate to no other shawm, and one wonders whether by any chance it was a feature added, by parallel with the Indian instrument, to an otherwise indigenous wholly wooden instrument. The northern Thai version of a Burmese shawm from the Mon people, which we shall come to next, indeed has a metal bell, but it is firmly attached to the body.

According to Dhanit Yupho (Thai Musical Instruments, trans. David Morton), there are four separate traditions of shawm in Thailand, the Indian type, the pī chanai, the name clearly deriving from Indian shahnai, which is now obsolete; the Burmese type, the  $p\bar{t}$   $m\bar{o}n$ , the name deriving from the Mon people; the Indonesian, or Javanese type, the  $p\bar{t}$  chawā; and the indigenous variety, the  $p\bar{i}$  nai, with its smaller variants, the  $p\bar{i}$  klāng and  $p\bar{i}$  $n\bar{o}k$ . Save that their bells are of different materials, the first three are not greatly dissimilar, though David Morton describes the  $p\bar{t}$ chanai as much smaller and shriller than the others. The  $p\bar{i}$  nai, however, with its curvilinear form and lack of a distinct bell, is entirely distinct and does clearly represent a quite different tradition, and possibly one unrelated to the prevailing Islamic stem. I am fortunate in having examples of most of these types. Morton in his book on The Traditional Music of Thailand gives descriptions and detailed photos of the whole process of reed making, and it is probable that this method applies fairly generally to all the South-East Asian multiplex reeds of palm leaf.

My larger  $p\bar{t}$   $m\bar{o}n$  from North Thailand, on the right in figure 7-2, is a tenor shawm (VIII 224a). The body is of dark stained wood, which appears to have been worm-eaten before it was turned and varnished. Its head is wrapped with coloured wool, a strand of which extends downward and also holds the long brass bell, and the bottom of the body is lapped with string to hold it



Figure 7-2: Thai treble and tenor  $p\bar{t}$   $m\bar{o}n$ , VIII 224b and 224a.

in the bell. Whether the *hnè* originally had its bell fairly firmly attached in this way, or whether the Thai are a tidier-minded people who prefer not to have the bell flopping as loosely as the Burmese, is perhaps a matter for further research. The bell is made of very thin brass (c. 0.6mm thick) which is easily bent between the fingers; as a result the flat flange is never actually flat. The bell is made in three parts, soldered together quite roughly with soft solder: 1) is the upper part which is very slightly more conical than

the body; 2) is the lower part, which is much more sharply expanding, with the joint between the two being supported by a brass ring soldered over it; and 3) is the wide flat flange. Both upper and lower parts have a longitudinal seam overlapping clockwise on the upper part, anti-clockwise on the lower, and also soft soldered; the flange is simply a quoit, cut from a brass sheet. There is a long metal staple wrapped with different wool but the reed, and maybe a pirouette, are missing. There are seven fingerholes on the body.

VIII 224b is a treble  $p\bar{\imath}$   $m\bar{o}n$ , on the left in figure 7-2, and the place from which I bought both of them said that they were played together. The treble is similar to the tenor  $p\bar{\imath}$   $m\bar{o}n$  above save that the head is wrapped with green string and that the metal bell is relatively shorter though much the same shape, but with a more prominent ring round the proximal end of the bell. The flat flange on the end of the bell is thicker at 0.3 mm, and because it is made from a much harder alloy and is slightly saucer shaped, rather than flat, it is considerably stiffer. Again there is no reed or pirouette, and again there are seven fingerholes. They were both bought together from Global Village Crafts, South Petherton, and, since they are also played together, they are therefore shown together. While much of Global Village's stock was tourist tat, they did also buy genuine folk material of all sorts when they saw it, and these instruments are in the genuine folk category.

My example of the  $p\bar{t}$  chaw $\bar{a}$  from Thailand (X 104) is made wholly of wood with fragments of iridescent shell pressed into the surface of the wood. The separate wooden bell is similarly decorated, and has an aluminium upper ferrule [Fig. 7-3]. The body is inserted into the bell upwards from the bottom until it comes to rest and is then held by friction instead of the more normal tenon and socket. It has a thumbhole and seven fingerholes. The



Figure 7-3: Thai pī chawā, X 104.

palm-leaf reed is quadruplex, with two blades on each side of the windway, and the pirouette on the staple is made from a segment of coconut-shell. It was bought from Tony Bingham.

The best-known Thai shawm is the  $p\bar{\imath}$  nai, which, as was said above, comes in three sizes, all three of which are played together in the classical ensembles of the court orchestras, which are not unlike the Burmese described above, though each of the instruments is differently shaped, with the chimes either flat or horse-



Figure 7-4: Thai small pī nai, probably a pī klāng, VI 122.

shoe shaped, the side of the horse-shoe reaching vertically upwards. The *rebab*, the fiddle, is the most beautifully shaped of all those from South-East Asia. My version of the  $p\bar{\imath}$  nai (VI 122) I think is the medium size, the  $p\bar{\imath}$  klāng, though it might be the smallest, the  $p\bar{\imath}$  nōk; Morton does not give measured sizes, which makes it difficult to judge, unless one can see all three together. The body, of a reddish hardwood, has an external medial swelling as though it were pregnant, decorated with many turned and in-

cised rings, but the interior is a normal cone. It has a narrow staple with a small quadruplex reed (two layers of leaf on each side), which has unfortunately been damaged; there is only a stub remaining [Fig. 7-4]. There are six fingerholes, the four upper of which are separate from the two lower, with the distance between the fourth and the fifth fingerholes double that between each of the others. There is a turned ring above and below each fingerhole so that there is a 'field' for each fingerhole and an empty field between each, with three empty fields between the fourth and fifth fingerholes. This spacing strongly suggests that this type of shawm may once have had seven fingerholes, as on the preceding Thai instruments. The narrowest parts of the body, or waists, are immediately above the uppermost fingerhole and immediately below the lowest one. There is no separate bell nor any terminal flare to the body. It was bought for me by Ferdinand De Hen in Bangkok, in exchange for a *shofar*, and at the same time he also bought a pī nai for Anthony Baines, which is now on show in the Bate Collection.

I have no examples of shawm from the other countries of that area, nor, I regret to say, do I even know whether shawms exist in Laos, Cambodia, or Vietnam, though I would be surprised if they did not, even if only Chinese imports, despite the fact that free-reed mouthorgans tend to be dominant in some of those nations.

Moving south now into Indonesia, I have two pairs of *sarune* from Sumatra, one of each pair a tenor (*sarune basar*) and the other a treble (*sarune getep*). They are particularly interesting because the tenor is played with a double reed and the treble is played with a single reed. This leads to problems in classification because Hornbostel and Sachs, who produced the classification system that is now used worldwide, separated all the reed instruments into groups according to the reed type, one with single

reeds, another with double reeds, and a third with free reeds (and very recently a fourth with a membrane rather than a reed), instead of using the more logical, and the more acoustically correct divisions, of cylindrical bore and expanding bore. I have tried, unsuccessfully, to convince the classification committee that we should make a very radical change and shift to bore shape, if only because anyone can see whether a bore is straight or expanding, whereas reeds are often missing, and, as in this case in Sumatra, had the reeds been missing I would never have known which type were used.

Another interesting point with these Sumatran *sarune* is that their parts barely fit together. Usually any multi-part instrument has tenons and sockets, usually cylindrical, at least a couple of centimetres long so that all is securely held together in performance, but these instruments have only two or three millimetres of tapering fit, so that unless one rams one section into the other so hard that it threatens to split the socket they seem likely to fall apart in use, and it is even very difficult to get them to stand up to be photographed! How they can be played when the joint between each section is so precarious I have no idea.

As I said, I have two pairs, one of fairly new instruments from the Batak people of North Sumatra (X 280/282), brought back for me by Tim Byard-Jones. The other is a much older, and rather cruder, pair from Samosir Island, Lake Toba, North Sumatra (XI 32/34), also from the Batak people, brought back for me by Tony Bingham.

The body of the newer *sarune basar* (large *sarune*, X 280) is of a dense hardwood, slightly swelling to the mid-section. There is a decorative flange or wing at the top, projecting backwards and downwards. It has a thumbhole and five fingerholes, arranged so that the fingers of one hand cover the thumbhole and the upper

two fingerholes and those of the other hand, after a gap, cover the three lower fingerholes. The bell section is from a somewhat less dense hardwood with a long horn upper ferrule to accept the body, and a separate bell plate, probably of the same less dense wood, fits over a tenon at the end of the bell section. A horn top piece fits into the top of the body and is held by a thread, which was broken but has now been replaced by nylon fishing line, to the flange; a coconut-shell pirouette is held in position on the tenon at the top of the top piece by the quill staple of the reed and is also attached by a thread, which again has now been replaced. The double reed is made of a flattened plant stem similar to the Chinese shawm reed but slightly larger.

Its treble partner, the *sarune getep* (X 282), is similar in shape but its bore appears to be cylindrical, thus limiting its range. The body is a hardwood apparently intermediate in density between those of the *sarune basar*, with a thumbhole and four fingerholes. The bell section is of softwood with an integral bell plate. The coconut-shell pirouette is attached to the upper flange by a cord and the single reed is of bamboo with an integral downcut blade. The two are shown together in figure 7-5 with the tenor shown from the side to show the flange and the treble from the front.

The older *sarune basar* (XI 32) is similar save that the bell section is of softwood with a ferrous metal ferrule instead of horn and a wooden top piece with a horn pirouette. Its treble counterpart (XI 34) is similar to the other *sarune getep* save that the bore is expanding, that the bell plate is separate, and that the fingerholes appear to have been burned in rather than drilled. Again the tenor has a double reed and the treble a single reed. Each of them is so precarious to fit together without splitting the sockets that they are not illustrated.



Figure 7-5: Sumatran *sarune basar* (tenor with double reed) and *sarune getep* (treble with single reed), X 280 and 282.

The Sundanese Strait lies between South Sumatra and Java, and the Sundanese people of West Java are also shawm players. There they call the shawm *tarompet*, perhaps because of its loud sound and quite wide bell, and perhaps also due to Dutch influence, for much of what is now Indonesia was a Dutch colony. The instrument is of wood with a separate wooden top piece and a separate wooden bell carved with leaf patterns (IX 230). There are seven fingerholes, all sloping sharply downwards. The top piece



Figure 7-6: Javanese *tarompet* from Sunda, with detail of pirouette, IX 230.

carries a large metal pirouette (probably traditionally of coconut shell) that curves right up on each side as a cheek support (shown inset), very much like the ancient Greek *phorbeia*, presumably for the same purpose of supporting the cheeks during circular breathing and avoiding their excessive distension [Fig. 7-6]. The reed, on a quill staple, is sextuplex, three segments of leaf on each side of the windway. It was bought as a new instrument from Ganesha,



Figure 7-7: Indonesian *serunèn* from Madura Island, with detail of pirouette, XIII 160.

a firm run by Marten Timmer, who was importing material from Indonesia. It is now on loan to the Bate Collection.

Immediately off the north-east coast of Java lies the island of Madura, whence comes a *saronèn* or *serunèn* (the names are according to Jaap Kunst, *Music in Java*, p. 238), which, like the Sumatran *sarune*, is clearly a *surna* lexical derivant (XIII 160). It is of dark-stained light wood, with a brass staple and collar, a wide

decorative aluminium *pirouette*, wide enough to cover the whole width of the mouth (shown inset), though it does not extend over the cheeks. There are a thumbhole and six fingerholes, which appear to be bushed; the thumbhole is not and is much more worn as a result. There is one vent on the left of the bell, bushed with a match-stick or similar fragment of wood. There is an integral wooden collar at the root of the bell [Fig. 7-7]. This is an oldish instrument which contrasts well with the *tarompet*, which was a new unused instrument. It was bought from Kalimantang, 17 Cecil Court, London, and full collector's details, and a reed, were promised but, as happens only too frequently, these have never arrived; perhaps the original owner never responded to a request for further details. The shop's label said: Madura Arabic Flute (243).

Going eastwards from Java, there is Bali and immediately to the east of that island is the island of Lombok. There the shawm is called *preret* (IX 232). The body has a thumbhole and seven fingerholes, all very small, and when putting the instrument together, instead of the separate bell section being pushed on to the end of the body, the body is pushed up through the bottom of the bell section until it comes to a fit, and it is then wedged in position by a piece of palm leaf; the upper end of the bell section has an aluminium ferrule round it to prevent it from splitting if the body is pushed up too far. This creates a slight problem because the lowest fingerhole of the seven is partly blocked by the top of this ferrule, suggesting that it is a vent rather than a fingerhole. The tenon at the lower end of the bell section fits into a large flat wooden bell plate, which is slightly worm damaged. A wooden top piece of fixed length (it has a tenon which goes into the socket) fits into the top of the body and a coconut-shell pirouette is held in position on top of it by the short quill staple in the base of the



Figure 7-8: Indonesian preret from Lombok Island, IX 232.

reed. The reed of what appears to be palm leaf, is held on the staple with thread, and it is a plain double reed, not a multiplex one [Fig. 7-8].

## The Shawm in China

The rest of my expanding-bore shawms are Chinese, though they come from different places, one from Hong Kong, one from Taiwan, and three from mainland China, one of them south Chinese and two of them north, which differ in one respect. All Chinese sona have a metal bell, but the North Chinese bells are in one piece with a smooth curved flare, whereas the South Chinese are made in two parts, with the upper part following the expansion of the bore and with the lower part flared like a trumpet bell. The joint between the two parts is protected by a V-shaped projecting flange, both inside and outside the bell. The external flange is not elaborately decorated like the bells of Tibetan shawms, but is just a plain metal V-shape. Nevertheless, this, as well as several other features which are common to both north and south, very clearly derive from the Tibetan pattern. It is, of course, possible that the influence is reversed, and that the Tibetan rgya-gling elaborates features of the *sona*, but my suspicion is in favour of the Tibet to China direction, partly because the shawm seems to have arrived fairly late in China.

My first example is the one from Hong Kong (I 182), and it is, as one would expect from that location, the southern type [Fig. 8-1 left]. This is a small instrument (the *sona* comes in different sizes so as to be played in different keys), and the brass bell is engraved Inalcy / HONG KONG; the wooden body has a faint similar mark. I was told that the local name was *jina* or *haidi*. As with all Chinese shawms, the body has a wavy outline which, to



Figure 8-1: Southern Chinese *jina* or *haidi* from Hong Kong, I 182, and right *sona* from Taiwan, V 84.

my eye, replicates in a more simple way the rings between each fingerhole of the *rgya-gling*, and certainly both the waves of the Chinese and the rings of the Tibetan shawms help the player to locate the fingerholes by feel. Each of the seven oval fingerholes lies in the valley between the ridges except for the thumbhole which lies on the ridge between the two uppermost fingerholes. Like some other shawms we have seen above, all Chinese shawms are pushed up through the bell until they jam, usually with some form

of sealing compound to keep them in place – since this is inside the top of the bell and between it and the bottom of the body I have not risked disturbing it by trying to see what it is made of. Each part of the bell has a longitudinal seam and the bottom of the bell is rolled over to strengthen it. The staple has a pirouette and below that there are two small pierced brass balls. These, as on all Chinese shawms that I've seen, are all soldered into place, rather than being loose on the staple like the Tibetan balls, and the pirouette is flat and plain, not with a downward-projecting skirt as the pirouette is in Tibet. I have no record of whence I got it.

The Taiwanese sona (V 84) is similar save that it is larger; the bell is of copper rather than brass; the staple has no balls on it; and the pirouette is missing, although the staple has a narrow ring soldered round it as a pirouette rest [Fig. 8-1 right]. The bottom of the bell is rolled over but inadequately, and the bell is somewhat crumpled as a result; the copper is of quite thin sheet. A paper label stuck inside the bell reads: Handmade in Taiwan / Republic of China. It is a cheap instrument, and it was bought in a Chinese shop in Cleveland, Ohio back in 1970, when I was driven from New York to Grinnell College in Iowa to become a Visiting Professor there.

A much better quality *sona* is the first from the mainland (V 190), again similar in all respects save that the wood is brown rather than black and has the same wavy profile, and that while the two balls are soldered to the staple there is only a trace of where the pirouette rest was soldered and the pirouette itself is missing [Fig. 8-2 left]. Four Chinese characters are cast in the metal of the bell, but they are so worn that only that at the top left can be read: "on the side of a river". It was bought from David Robinson.



Figure 8-2: South Chinese *sona*, V 190, and two North Chinese *sona*, the last turned to show the thumbhole, VI 194 and uncatalogued.

The first of the Northern Chinese *sona* (VI 154) was bought new from Raymond Man, a dealer in Chinese instruments of all sorts in London, and a useful source for reeds and also for the membrane that adds a buzz to Chinese flutes [Fig. 8-2 centre]. A paper label has, both in Chinese characters and in English, MADE IN CHINA. The bell of course has no flange since it was made in one piece, with a faint longitudinal meander seam. The fingerholes are round, rather than oval, and there is a ferrule of

brass scrim at the top of the body. The plain staple is without balls and it has a loose pirouette with holes for an attachment cord which was missing but has been replaced. It, the next, and the previous *sona* are shown together in figure 8-2.

Another very recently acquired Northern *sona* has a thumbhole and seven fingerholes, again with the thumbhole on the ridge, all of the holes oval. The bell is of white bronze and stuck to it with sellotape is a plastic bag with three spare reeds in it. The pirouette is a disc of plastic. It also is shown in figure 8-2 (right), so that the thumbhole can be seen.

Shawms are also played in Korea and to a much lesser extent in Japan, but regrettably I have no examples of either. In South Korea much of the traditional Chinese court and temple music survives from before the Cultural Revolution destruction of the old Chinese customs and practices, but whether shawms are also used in the North I have no idea.

We should now turn back and look at the cylindrical-bore shawms.

## The Cylindrical-Bore Shawms

For these we have to go back some way into prehistory, to around 2450 BCE, to the Lady Matet pipes from Ur of the Chaldees. A problem with these is that we do not know whether they had single reeds like those of proto-clarinets or whether they were played with double reeds. We are similarly uncertain about the Egyptian māt, which appears around 1500 BCE. Both these instruments were long and narrow in bore, which could imply a single reed, whereas the Greek *aulos* was shorter and wider in bore. The Lady Matet pipes were of silver and there is no other evidence for anything like them in that geographical area; this of course is due to the lack of archæological evidence, and perhaps one day further examples may appear for they seem unlikely to have been unique. There is always a valid assumption that instruments of hard, archæologically-surviving materials are likely to have been preceded by more perishable materials such as reed or wood. The Egyptian *māt* were of reed, and the Greek *aulos* seems to have been either of reed or of thin wood, but at least we do know that the Greek *aulos* more usually had a double reed. Certainly some illustrations on pots seem to show a single reed, but the majority look to be double. All three of these, the Lady Matet, the *māt*, and the aulos, were cylindrical-bore reed pipes and therefore comparatively low in pitch.

A reed-driven cylindrical bore works as what is often referred to as a 'stopped pipe', sounding most of an octave lower than would an expanding-bore reed-driven pipe of the same length –

one could compare a clarinet, which has a cylindrical bore, with a straight soprano saxophone, which is expanding in bore, each of them in the key of B flat, and then the difference becomes obvious. for the lowest note of the saxophone is the B flat below middle C, whereas the lowest note of the clarinet is the E below that, a sixth lower. What is more serious is that the cylindrical-bore instrument overblows only the odd-numbered overtones, so that the first overblown note is a twelfth above the fundamental, as does the clarinet, whereas the expanding-bore instrument overblows an octave above the fundamental, as do the oboe and the saxophone. The result is that without the additional keywork, such as we have on the clarinet, the player does not have enough fingers to control holes that would cover the gap between the upper octave and the fifth above (a twelfth is an octave plus a fifth, C to g for example). The player can often so control the reed as to play, for example, C to c, and then jump up to play from the g upwards, but there is no way, for lack of fingers, to be able to play the d, e, and f in between unless modern clarinet-like keywork can be provided. So the repertoire is limited in range, and these instruments are mostly heard in the lower range.

So as to able to demonstrate the acoustical difference between these two differing bore shapes, I have made and used two aluminium tubes of the right diameter to accept both an oboe reed (a plastic one for convenience in such lectures) and a goose quill with a single reed sliced in its side, so that I can also demonstrate that the type of reed, whether it is a double reed or a single reed, makes no difference to the effect of the bore difference. One of these two tubes is cylindrical (XI 258a), below in figure 9-1 and the other (258b), is made of three segments of aluminium tube, each segment fitting into each other like the tubes of a telescope, to make a stepped cone, above in the figure. And of course each



Figure 9-1: Two aluminium reed pipes, the upper telescopically expanding in bore, the lower cylindrical, with double and single reeds, for acoustical demonstration, XI 258b and 258a.

of the two tubes is the same length. The cylindrical-bore example overblows to the twelfth with either reed, and the expanding-bore one overblows to the octave, again with either reed. They are quite short, enough to show the difference, and while I drilled fingerholes in the cylindrical one, I did not bother to drill fingerholes in the expanding bore one, partly because it was difficult to hold it steady in the vice due to the differing diameters down its length.

While we have examples of the Lady Matet pipes, the *māt*, and the *aulos*, for others we only have iconography, such as the clay figurines from in and around the Holy Land which may be identified with the Biblical *ḥalil* that first appear in the books of Samuel. These are from around the same period as the Egyptian *māt*.

Whether there was any connection between any of these we simply do not know, not only for lack of any evidence, but chiefly because there seems to have been unbridgeable time gaps. At much the same period as the Lady Matet pipes, there were in Egypt single-reed pipes, proto-clarinets like the common Arabic *zummara*, the two parallel pipes lashed together that little boys try to sell us in the *shuks* today, but the  $m\bar{a}t$ , which were two long, divergently held, pipes, one in each hand, appear a thousand years later. And the aulos, again two divergently held pipes, one in each hand, seems to have appeared in the Greek Classical period, yet another thousand years later. We have no evidence for the aulos with the Mycenæans of Crete and southern Greece, so presumably it was either a new instrument of the Classical period for the Greeks, or, and perhaps more probably, it arrived with the Hellenes who came in from the north and who displaced the Mycenæans. What seems to be uncertain is whether these Hellenes originated in northern Greece or whether they were invaders from Central Asia – there was much movement of populations in that period.

What we do know is that while the *aulos* was further developed in Rome into the *tibia*, the latter often with tuning rings so that one could close one fingerhole and open another and thus be able to change from one mode into another, the instrument died out in Europe after the Fall of the Roman Empire, or vanished away into folk culture, surviving only as small double flutes in parts of southern Europe, or morphing into the single-reed multipipe Sardinian *launeddas*.

But one form did survive in the Near East and that was the *monaulos*, the single-pipe version of the *aulos*, which otherwise had always been a pair of pipes held divergently in the mouth, one pipe played with each hand. The surviving instrument, a single

pipe with a large double reed, and only slightly shorter than most *auloi*, is still with us today.

It survives in Turkey as the *mey*, in Azerbaijan and Iran as the *balaban*, in Armenia as the *duduk* or *bağlama*, and on through Georgia over much of the Caucasus. It appears in China as the *guanzi*, in Korea as the *piri*, and in Japan as the *hichiriki*.

Always it is a pipe of cylindrical bore, usually wooden, though also of bamboo in the Orient, around a foot long, 30-35 cm, with a large double reed flattened at the tip. This reed is a wide-bore cylindrical plant tube, with enough of the cortex removed at the upper end to make a softish reed, soft enough to be compressed by the lips to form a double reed. It is almost always bridled partway down by a cane bridle, similar in function to a bassoon reed's wire to keep the reed in its proper shape, and it often has a cap that will keep the tip flattened while it is not being played. Laurence Picken, in his Folk Music Instruments of Turkey, provides a very detailed description of this type of reed, as well as that of the Turkish *zurna*, and describes how each of them is made. There are usually seven to eight fingerholes and a thumbhole, and it was Anthony Baines in his Woodwind Instruments and their History who identified the two thumbholes of the Japanese hichiriki as a coalescence of the two pipes of the *aulos* into the one instrument, a thumbhole with four fingerholes and below that another thumbhole with three fingerholes, all on the one body. Although today all the other cylindrical shawms have only the single thumbhole, there is evidence that in older times, some of them, at least, had the same two thumbholes as the *hichiriki*. It is a characteristic that many Japanese instruments, especially those that are used in ceremonial music such as the gagaku tradition, retain archaic forms such as this.



Figure 9-2: Turkish mey, VI 118.

I have several examples of the cylindrical shawms, from Turkey to Japan, and so keeping to our previous direction from west to east, our first is a Turkish *mey* (VI 118). It is made of blackpainted white wood with a thumbhole and seven drilled fingerholes. There is no bell flare, of course, with any of these instruments, and with each of them the bore is purely cylindrical. The bulb at the top is reminiscent of the *holmos* of the Greek *aulos* [Fig. 9-2]. It was kindly brought back from Turkey for me by



Figure 9-3: Armenian bağlama or duduk, XIII 24.

David Kilpatrick who said that he had bought it from a player. The large double reed began to disintegrate, and I was brought another one, apparently from a different but similar plant.

The next is an Armenian *bağlama* or *duduk*, which is made of a dark-stained wood (XIII 24). It has a thumbhole and eight fingerholes, the uppermost of which is very highly placed, immediately below the base of the reed socket, and it has one low dorsal vent [Fig. 9-3]. It was bought, with two reeds in separate packets,



Figure 9-4: Iranian balaban, VIII 40.

from Barış Müzik Evi, Galipdede Cad. 151, Karaköy, in İstanbul in January 2003. This is a street that is full of musical instrument shops, and includes the Dervish Museum. I also bought two spare reeds for the *mey* from another shop in the same street, as well as a number of other instruments.

My Iranian *balaban* is of boxwood (VIII 40) and it has a thumbhole and seven knife-cut fingerholes [Fig. 9-4]. It was bought at a Sotheby's auction of the detritus from the surplus

instruments from the Age of Islam Exhibition, 20/11/1980, lot 193.

As with the expanding-bore shawms above, I am unfortunately lacking in examples from further over in the Caucasus, though many examples, and also expanding-bore shawms, can be seen in the pages of the Vertkov, Blagodatov, and Yazovitskaya *Atlas of Musical Instruments of the Peoples Inhabiting the USSR* (the second edition has captions to the plates in English as well as in Russian).

These three instruments are each very similar in appearance and size, whereas the Chinese guan vary considerably in size and material, especially those of bamboo. Some of the other guan are quite heavy, made of wood with low-melting-point metal, probably pewter rather than lead, run into the wood as decoration. The first of my guanzi (I 196), which is one of these wooden examples, has a thumbhole and seven fingerholes, the three lower fingerholes closer together than the four upper ones. Only the thumbhole, and the slight evasion of the upper end of the bore to form a reed socket, indicate which end is the top. The reed, while large, is clearly a different plant from those of the mey and balaban and it has a wire binding towards the distal end; it has not been scraped [Fig. 9-5]. It was bought from Collet's Chinese Bookshop as one of a batch of Chinese instruments which had been ordered by Peter Crossley-Holland but which arrived, I think by some years, too late to be of any use to him — in those days, the early 1960s, such things were not easily obtainable in England and, if they arrived at all, they often took a long time to do so.

I also have two bamboo *guan* (VII 166a and b), one (a) short and the other (b) almost twice as long. Each has a thumbhole and seven fingerholes, and, like the previous instrument, only the very slight evasion of the bore at one end and the thumbhole indicate



Figure 9-5: Chinese guanzi of wood, I 196.

which way up they are. The longer is shown in figure 9-6. They were bought from Raymond Man, then in Covent Garden, with 2 spare reeds. His shop was basically for Chinese musical instruments, but he also stocked some Indian and other instruments. He always stocked suitable reeds, strings, and other accessories, and for many of the instruments in my collection these were bought from him. When last heard of, he had moved to Camden Town.



Figure 9-6: Chinese guanzi of bamboo, VII 166b.

A much smaller *guan* (X 226) was brought back and given to me by Helen Rees from her research among the Naxi people of south-western China in the Himalayan foothills. This is of bamboo, cut square externally, with five burned fingerholes and without a thumbhole. The reed is small and black and cut to a point at the top; it has no ligature. The whole instrument is very small, only 110mm long [Fig. 9-7 with detail of the reed].



Figure 9-7: Small Chinese *guan* from the Naxi people, with detail of reed, X 226.

An even less usual *guan* is much longer and is made of pale green jade (VIII 176). It has eight fingerholes and no thumbhole, and it seems likely that it was a votive instrument or for deposit in a grave rather than being intended to be used as a practicable instrument [Fig. 9-8]. It appeared in a Sotheby's auction, 5/11/1981, lot 45, where it was catalogued as "Ti tzu ... membrane hole and embouchure absent," thus as a flute (*di*) which was broken so that part of its length was missing. A glance showed



Figure 9-8: Chineses guan of jade, VIII 176.

that it was unbroken, and its true identity was obvious, for the top of the bore was, as usual, very slightly evased as a reed socket, but fortunately it was not recognised by anyone else, so that it cost very little, and jade is not only a beautiful material but it also has mystical properties, one reason for suspecting that this instrument was votive or funereal. It may be of some considerable age if it were made for a burial, but with jade there is no way of telling whether it is an antique or a quite modern object.

The Japanese *hichiriki* clearly derives from the Chinese *guanzi*, although it is very differently made. As a member of the traditional *gagaku* orchestra it retains its ancestral second thumbhole and it has seven narrow, sharply pointed oval fingerholes. (I 194). The body is of bamboo, allegedly turned inside out, though how this might be done I have no idea, and it is internally lacquered which does help us to see whether the inside might originally have been the outside! Certainly the outside shows no signs of any original cortex, but that is not evidential for it might merely have had the cortex removed. It has bindings of willow bark between the fingerholes in traditional patterns, shown on the right with the fingerholes. It was kindly brought back for me by Professor Ronald Dore, who bought it for me in Tokyo, with a spare reed and a silk bag.

Tony Bingham very kindly gave me another *hichiriki* (X 60), which to the eye appears identical with the previous instrument, but which is made wholly in plastic (save for the reed) as a modern, and presumably less expensive, equivalent, shown on the left with the thumbholes. The two are shown together in figure 9-9, so that both fingerholes and thumbholes can be seen.

As I said above, regrettably I have no examples of the cylindrical shawm between the Armenian and the Chinese, nor do I have a Korean *piri*, but again as above, a number appear in the Russian *Atlas of Musical Instruments* to show that these instruments can be found most of the way down the Silk Route between Turkey and the Orient. There seems to be nothing like them anywhere else; all other cylindrical reed instruments have either single reeds, or, as in Burma and the Chinese border countries of that area, they have a free reed plus fingerholes, instruments perhaps to be explored in further papers for this site. While I (and Anthony Baines) do believe that these instruments are *aulos* derivatives



Figure 9-9: Two Japanese *hichiriki*, left X 60 of plastic to show the thumbholes, and right I 194 of bamboo to show the fingerholes.

and that they travelled across Asia, one must emphasise that this can only be a theory and that there is no external evidence. We are not helped by the fact the *hichiriki* does not appear among the instruments from the sixth-century Chinese Tang Dynasty in the Shōsōin Treasury in Nara, whereas if it had been there, that would at least have given us a date. Nor, of course, do we know in which direction any of these instruments may have travelled, whether from west to east as suggested above, or whether there

might have been a central Asian origin from which they travelled in both directions, as with other instruments such as the gong, the fiddle bow, or the 'ud and pipa.

It is the expanding-bore shawm that is far more widespread across the world, and that instrument did travel from west to east. It is still played today all over North Africa, the Near and Middle East, across Asia, down into Indonesia, and throughout the Orient. The bag-blown version is still with us over much of Europe, not only in Scotland, and there are indigenous versions in many countries. The mouth-blown version thrives all over northern Spain and in the north of Portugal, as we have seen. In the Pais Occitan, in Catalunya and in the French Catalan area across the border, there is even an 'orchestral' version with full simple-system kevwork, the tiple and tenora that play in the sardana bands alongside flugel horns of different sizes. The sardana is a round dance into which large crowds join, often in the town square after Mass, and playing also in bandstands on the promenade. Although in Britain only the bagged version survives, and that mainly in the north, shawms are made and heard in many Early Music contexts, and even some of the English bagpipes are today being reconstructed and revived. Long may all of them thrive!