Transmission of Instruments

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In the late nineteenth and early twentieth centuries there were two distinct theories about the origins of music and of instruments.

One was that most instruments were invented once and were then transmitted around the world from one people to another.

The other was each people or area invented instruments independently.

Nowadays the idea that either of these theories is the sole answer has been discarded, and it is generally accepted that each is true in some cases, for it is abundantly clear that some instruments, the bull roarer for example, were independently invented, and that others were transmitted around the world through trading and migration routes.

While the latter is the subject of this article, it is still fascinating to think just how did anyone think that attaching a blade of wood or bone to a cord and whirling it around one's head could produce a sound so menacing, so mysterious, often as ritual and/or as imitation of an animal? And this is equally so, with so many other instruments that clearly go back to the earliest strata of humanity's musicality – see the first chapter of *Tutti Fluti* on this site, for another example.

There is a number of examples of transmission of instruments on this site, and the purpose of this article to bring them, and some others, together. Some are clearly over wide geographical and temporal distances, whereas others are comparatively local and short in time and space.

We are also dealing mainly with objects, but there is also the transmission of ideas: 'we make music with this, why don't you try it?' must have been said again and again, and so an object that may not have been thought of as an instrument is

taken into use just as it had been in a different area. Thus a winnowing tray can become a frame drum.

And a further aspect is that instruments develop within a culture but also that some instruments change as they travel, being adapted as they go from hand to hand, either due to local preferences or sometimes simply because different materials are unavailable in a different place and so the instrument has to change. The music that the instrument produces can change also, to suit the concepts of the different people who adopt the object.

A good instance of that last example took place between China and Japan, when in the Tang dynasty a whole batch of instruments travelled over that short distance in both time and place. We have many of the Chinese instruments of the Tang period of the sixth century preserved in the Shosoin Depository in Nara, and it was Laurence Picken who recognised that the Chinese music of the Tang was also still preserved in the court and ritual music of Japan, and yet so changed that it had become unrecognised, slowed down by some six or more times. Something of the sort must have have happened in our music also, for why else should the longest note in our notation be called brief, the next longest but one termed minimal, and others simply quaverings rather than distinct notes?

The transmission of the Chinese instruments to Japan is one of the shortest journeys. One of the longest must be that of the Greek aulos to the Japanese hichiriki, and in contrast with the China/Japan journey, this one involved the instruments but not the music. The aulos, whether a pair of instruments or a single (monaulos), was a tube of cylindrical bore with, usually, a large double reed (some seem to have had single reeds like those of the Arab zummara) which appears to have been tubular and soft enough to be flattened at the player's end. It survives today in Turkey as the mey and in neighbouring areas under such names as balaban and so on. It can be found across the Caucasus (see the Vertkov et al. *Atlas*) and wound up in China as the guan, in Korea as the piri, and in Japan as the hichiriki. All are cylindrical tubes, most rather shorter than the aulos that we see on Greek pots, and all with a large tubular reed, again soft enough to be flattened at the tip. The earliest evidence for this type of instrument is the silver pipes from Ur, dating back to around 2500 BCE, followed by the Egyptian mat. When

they came into Greece we do not know, for they were known to the Minoans of Crete but there is no Mycenean evidence on the mainland. While it is possible that they spread both east and west from Mesopotamian Ur, it seems more likely from what little evidence we have that the journey was first westwards to Egypt and Crete, and then eastwards as the Silk Route opened up in the later Classical Greek period. It does not appear to have travelled any great distance further into Europe.

A route that was from Central Asia both west and east seems to have been that of the gong. The Chinese referred to it as having come from the west; St Paul knew it among the Corinthians, using the Greek term chalkos echon, and such instruments were known in ritual, for example at the Zeus ritual site at Dodona.

Very similar was the route of the long trumpet, again from Central Asia, both eastwards into India and China, and westwards from Persia into North Africa as the añafil, down to Nigeria and Ghana as the kakaki, and upwards into Spain as al nafir and thus throughout Europe.

The same thing happened to the fiddle bow as Werner Bachmann has shown, again from Central Asia, somewhere between the Caspian and Aral seas, again spreading east and west. Before around the sixth century CE, we have no evidence for any bowed instruments anywhere in the world, whereas by the eighth century they seem to have been everywhere, one of the most rapid transmissions on record.

Yet one other instrument originated from the same area – why was this area so creative? – and that was our lute, first described as el ud by Al Farabi, but that, as an instrument with a pear-shaped bulbous body and a back made of thin strips of wood, rather than carved from a solid block, seems to have spread only westwards, again through North Africa, up into Spain and then throughout Europe as the Queen of instruments all (the King was the organ).

That instrument, the organ, was invented in Alexandria in around 250 BCE (so it could not have been used in biblical times as some translations of Genesis and Psalms might suggest) and it was adopted by the Romans where we can see it used in the arena to accompany gladiatorial contests, or maybe to entertain the

audience between bouts. It survived in the Byzantine Empire and one was sent from there to Charles Martel, the father of Charlemagne, in the eighth century. Thereafter its use spread in churches throughout much of the world.

The lyre, too, seems to have begun somewhere in the Middle East. Nobody so far seems to have tried to trace its origin, but it certainly appears in ancient Mesopotamia and then westwards as far as the eastern shores of the Mediterranean (I have so far seen no eastwards transmission) where it was the instrument of King David the Psalmist. Then somehow into Greece where it was Apollo's instrument, and to Rome, where Nero played it while Rome burned (as we have just seen, he cannot have fiddled because the bow had not yet been invented). From Rome it went with the Romans (or maybe earlier with the Greeks) into Byzantium. It was thence that the Norse Vikings, who were mercenary soldiers to the Byzantine courts, took it home via Novgorod and Danzig, where we have physical remains, up into Scandinavia (where Otto Andersen called it *The Bowed Harp*) and to Sutton Hoo in East Anglia. It also travelled down into Hellenistic Egypt and then up the Nile to the Meroitic peoples of the Sudan, and so into Ethiopia as the baganna, and all over East Africa and even to South Africa, in which areas it is still found today.

Maybe, too, the harp, for harps also appeared in Mesopotamia. These did travel eastwards into India and beyond into Burma, where they are still played, and also westwards into Egypt where we see some small enough to be held up on the shoulder (and these travelled down into Africa where they are still found in Central Africa), and also large, floor-standing ones as tall as the player. It was only in Europe that we see harps with a forepillar, a third element to convert a < or a C into a triangle, first in the Cycladic Islands of the Aegean Sea in the Neolithic period, but then not again until the Utrecht Psalter of the ninth century, and uniquely in Georgia as the changi, whereas elsewhere in the Caucasus it is always < shape. It was normally small in size, often light, for example first in Wales with a skin belly and horsehair strings. A heavier model, seen first in Lincoln Cathedral in the twelfth century, went on to Ireland, where it appeared in the fourteenth century, as can be seen in the Library of Trinity College, and in Scotland. It grew in size, sometimes acquiring a second rank of strings as in Monteverdi's arpia doppia, and then a third rank as the Baroque harp for which Handel

wrote a concerto, and that triple harp later became the Welsh harp, which is still with us today. The French invention of a pedal mechanism allowed a reversion to a single rank of strings, and this of course is still with us in our orchestras.

Where did the shawm originate? An instrument of expanding bore with a small double reed, again a flattened tube but a reed far smaller than that of the aulos, and because of its expanding bore, able to overblow up into a higher register, whereas the aulos and all its derivatives have either a low or a high register but with a gap of three or four notes between them that cannot be sounded. Its transmission across the world was with Islam, but where it originated we do not know. We see it among the Etruscans in the fourth century BCE, so perhaps it began there, and among the Romans, and it appears with the Persian Sassanids in the sixth century CE (there are always these frustrating chronological gaps in the iconography, which is so often our only evidence). We know that it was carried into India by the Persian Mughals into India as the shahnai, and it appears still in all the Muslim Central Asian -stan states. It went thence into China as the sona, and was and still is used throughout the Ottoman Balkans and North Africa as the zurna and down into Nigeria as the alghaita along with the long trumpet. Like the trumpet and the lute, it also came up into Spain and throughout Europe, keeping the Maghribi gaita name, which in English became the wait pipe, for the waits whose main instrument it was, were our town bands and the city watch. The Spanish Conquistadors carried it into the Central Americas where we find it in Mexico, and in Europe it eventually turned into our oboe in the late seventeenth century.

The transverse flute seems to have begun in India, where it was associated with the deity Krishna and travelled east into China, and thence with other Tang instruments into Japan. How it travelled westwards we know less, but it appears in some Near Eastern late Roman sites and in Petra in Jordan, but thereafter we do not see it again until the tenth century in Byzantine psalters. And then again it comes to Spain and can be seen in the thirteenth-century Cantigas de Santa Maria, but only very occasionally after that until it was taken up by Swiss mercenaries in the late fifteenth century as the Schweisterpfeiff. Save for further brief appearances, for example with the Ladies of the Half-Length paintings, it did not become a respectable instrument until Frederick the Great adopted it.

When the King played it and Bach wrote for it, of course it was respectable. But it was still not 'the flute' – it was the German flute, the traversiere, the flauto traverso – the Flute was the recorder.

One last example, a short journey and a quick one. In Spain two instruments were popular, the rebab, a small bowed instrument adopted from the Moors and still found in Morocco as the rebab andaluz, and the vihuela, roughly speaking a lute on the body of a guitar, for the vihuela played the same repertoire as the lute but was flat-backed with a waisted body. Someone in southern Spain applied the bow of the rebab to the strings of the vihuela and created the vihuela dal arco, as Ian Woodfield has shown us. With the Borgias it travelled to Naples and further up into Italy where it was perfected as the viola da gamba, at only a few years before the three strings of the rebec were applied to a small model of the lira da braccio, creating the violin.