Side-blown Horns

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These are rare around the world as a whole. They are common of course as side-blown shell trumpets throughout Oceania and in a small part of East Africa, but that was my subject at another conference, and is also on my Website and so I shall ignore them here. But other side-blown horns are endemic all over Africa, from Sudan southwards; they are well-known in parts of Papua New Guinea; they are rare in India and even rarer in South America; and they were important in Ireland, but only in the Bronze Age from around 800 to 600 BC. And so far as I know, they were known nowhere else.

What are the advantages of side-blowing? The first is physical. Ivory horns were and are widely used in Africa, and some tusks in older periods were well over two metres long[1] – in more recent times hunting, and today poaching, has prevented elephants living for long enough to produce tusks of such size. My own longest were acquired as already of some age in 1967, and they are no more than 60 centimetres long. But ivory is very heavy and to hold the weight of 2 metres projecting forward, as the longer ones would be if they were blown from the end, would be almost impossible; even with 60 centimetres it can be very tiring. Even heavier are the cast bronze side-blown horns of Lamu and Pate, small islands off the cost of Kenya[2] – these can weigh up to 17 or even 20 kilograms. With side-blowing, the embouchure can be down towards the point of balance and thus the instrument is much easier to hold.

And this brings us to the second advantage. When one blows from the side, wherever the embouchure may be in the tube, one resonates the whole length of the tube. With a set of aluminium tubes, which I made, if I blow at different points by fluting at the near end, the middle, and the far end, I get different pitches which shows that I'm resonating only part of the tube. But by trumpeting, whether I blow from the end, near the closed end, in the middle, or near the open end, the pitch is always the same, showing that I'm resonating the whole tube, though the tone quality in the last, near the open end, is severely degraded. In addition, if I open the closed end, I get different pitches according to the diameter of the open hole, and thus I can control the interval between open and closed notes, either with full diameter, or with the end bushed and thus a smaller hole. With a tonal language, like many of those in Africa, one can thus duplicate the pitch and rhythmic patterns of speech and that is what was once called the bush telegraph. I once heard a Nigerian student of mine summoned by a musician with his instrument. We heard the pitch pattern for ‘Azùbíqye, and Azubiqye got up from beside me, walked over to the players, and took over from one of them. The third advantage, also connected with talking, is that with shorter instruments, up to 60 or so

centimetres long, one can reach the end of the bell and cover it to a greater of lesser extent with the hand, so getting additional pitches for tonal languages.

In Africa horns are made of all possible materials, ivory, horn, wood, cane, and gourds.[3] There are some interesting variations: in most of central and western Africa the embouchure is always on the concave side of the horn. In Nigeria, and only so far as I know among the Igbo, the embouchure is on the convex side of the curve. In southern Africa, especially among the Zulu, the embouchure is on the flat side. Of course when the instrument is made of wood or gourd, or a straight horn, there is often no convex of concave, for the instrument is straight, including some very large wooden instruments, so large that when the player holds them vertically in front of him, blowing into a hole in the back, all that can be seen of the player behind the horn, which is often carved in human shape, is his feet. Gourd side-blown horns are particularly important in Uganda, both culturally and historically, for they were played in sets of five as part of the court ceremonial of all the important chiefs of Bantu Uganda and beyond.[4] They are also used for all other normal purposes in all sorts of shapes, straight, often with cane extensions, curved, S-shaped and so on.

In New Guinea the instrument normally seems to appear in the Highlands and is either of wood or sometimes wide-bore bamboo and is said to be used for all those occasions where a conch would be used in coastal regions. In the old days, communications across this huge island were difficult and if conchs were not available, then vegetable materials had to be used instead – there were no horned animals in New Guinea before Europeans brought them there. There was no need for a fingerhole so that the top could be ornamented because the signal codes in Melanesia were rhythmic rather than also being melodic like they are in Polynesia.[5] In Melanesia one may suspect that because these were conch substitutes and because conchs were normally side-blown in that area, it was fairly natural to make horns of other materials that were also side-blown.

In India there are only two small areas where side-blowing is used on horns, and here we have no idea why, for all other horns and trumpets used in the Indian sub-continent are end-blown. One is among the Santhali people with horns made of horn, and the other is among the Muria Gonds, where they use both horns of horn and more often of cast brass or bronze.[6] They do not make the *tori* themselves but they have them made by a brass-working cast, the Gharsias. A series of the little rings all along the convex side of the horn and round the bell have a small pellet bell hanging from it. There is a variant form in and around Burma among the Karen people, where instead of trumpeting, a free reed is inserted into the side. It is not a mouthorgan – experiment has shown that the pitch produced is that of the horn, not that of the reed. These have a fingerhole in the tip, presumably because their language is tonal, and this why the instruments are side-blown: so that

a fingerhole can be put in the tip and thus produce a second pitch. The local language is tonal – Chinese is, and instruments are used for talking over a wide area of the borders of China even if not among the Han Chinese, and in this part of Burma.[7] But tonal language and instruments is the subject for a paper at a future occasion. An interesting side aspect to these – the only Asian ivory horn that I have ever heard of is one of this type of instrument from Thailand. Why are there no ivory horns in India? They have elephants in plenty and they use ivory for all sorts of other purposes, especially for decoration, both on objects and people, like necklaces, bangles, and so on, but never for trumpets. Nobody has ever produced a reason for this absence. Nor has anyone ever suggested a reason why the Karen and neighbouring people use a free reed rather than their lips – sure, it's easier and they are not the only people to use a free reed instead of trumpeting, but again that's another subject.

One area in the Americas where side-blown horns are used, is near the mouth of the Amazon.[8] There they have long instruments, made of wood by splitting it, hollowing it and reuniting it, just as they do with their long blowpipes for darts. But unlike the blowpipes, the trumpets are side-blown. Elsewhere in Amazonia there are several areas where shorter bamboo trumpets are used, most of them end-blown but some side-blown, usually with a rectangular hole cut in the side. They can be quite elaborate. Some Brazilian side-blown examples, from the Canella people for instance, have a gourd extension almost as long as the bamboo section, and with the bamboo part completely covered, except for the embouchure area, with a woven sheath of patterned split-reed or leaf. Others have elaborate extensions of plaited basket work that is waxed or lacquered and painted in various colours. Since it seems to be only in Amazonia that side-blown trumpets are used in the Americas, one does wonder whether there might be African influence there, with the western bulge of Africa not so far from the eastern bulge of America.

Our last area for the use of side-blowing is Ireland, and here there surely cannot be any African influence, for this use happened only in the Bronze Age, around 800-600 BCE. The instruments are of cast bronze and while many were end-blown, many also were side-blown.[9] Why, of all the bronze horns of European antiquity, from the Danish lurs through the Greek salpinx, the Celtic carnyx, to the Roman tuba and cornu, was it only in Ireland that horns were side-blown, and only in the Bronze Age and not in the Irish Iron Age, when all horns were end-blown? Peter Holmes, who has worked with these instruments may have some ideas, but I think that, as so often in our studies of instruments from cultures of the past, we can only say We do not know.

illustrations in *Liranimus*.

For further information, with illustrations, on these and other horns, see my book *Horns and Trumpets of the World*, Rowman & Littlefield, 2014.

1

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3 See my recent *Horns and Trumpets of the World*. Lanham: Rowman & Littlefield, 2014.

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9 Coles, John M. "Irish Bronze Age Horns and their relations with Northern Europe." *Proceedings of the Prehistoric Society* (1963), vol. 29 no. 11: 326–56.