

# Slit Drums

**Jeremy Montagu**

Slit drums are found all round the central belt of the world, from Africa through Asia, Indonesia, Oceania, and Central America. Because slit drums are made of wood or bamboo, they are biodegradable, and therefore we only have evidence for them from comparatively modern times, and so we cannot tell whether or not they might have been used in antiquity and back into the Stone Ages. Certainly they were used in the near-modern lithic cultures of pre-contact days, and are still used today in many of those areas. It would seem improbable that they were not used in our own prehistoric times, but this can only be speculation. They do not seem ever to have been used in Australia, nor are there any known traces of their use in pre-contact North America, although they were certainly used in Mexico, nor does there seem to be any evidence for them south of the Tropic of Capricorn.

Slit drums, as said above, are usually made of wood, or sometimes bamboo. They vary in size from something that can be held in the palm of the hand to logs two or three metres long and a metre or more wide. They vary widely in shape, though most are longer than they are wide, with a probable majority tubular in shape. Some are rectangular, like a hollowed brick, some globular, some much deeper than they are wide, some triangular with a wide base and a narrow top for the slit. Quite often they are marginally zoomorphic, with a carved head at one end and a tail at the other, for example in New Guinea with a crocodile head or in Congo with an animal head such as that of an antelope.

They are usually hollowed out through a slit in the upper side, and while the hollow may be no more than the same length and width as the slit, it may be far wider internally than the width of the slit. Acoustically they function as struck Helmholtz resonators, the basis of their pitch being the volume of the hollow, modified by the open area of the slit. The pitch can be further modified by the

thickness of the lips of the slit, with one side of the slit giving a higher pitch than the other, or by loading one of the lips at one point by leaving a lump of wood projecting internally – this latter pattern being common in New Guinea.

The realisation that they are giant Helmholtz resonators came from a field report that was brought back by Raymond Clausen from when he was on Malekula in Vanuatu. He watched people making a new standing dance drum in honour of their chief. They were determined to produce the lowest possible pitch, so they cut down the largest tree they could find and dug out the longest possible hollow, with a full-length slit, and were then horrified to find that the pitch was one of the highest – the area of open hole was the largest of any of the other drums, so the pitch was the highest. The proof that the area of open hole controls the pitch is easily demonstrated by striking the drum with a beater in one hand while progressively occluding the open area with the other hand.

Most commonly, slit drums are used for signalling, either rhythmically or, in areas such Central Africa where languages are tonal, using different pitches to imitate the rhythm and tonality of the spoken language, and so produce verbal speech patterns. They are also often ritual instruments, for example the Chinese *muyu*, known to us as Chinese temple blocks (and as ‘skulls’ in jazz bands). These are the globular ritualised shape of a fish’s head and derive from the earlier pattern of a carved fish with a slit in its back, but are now no more than the fish’s head, with the slit as the fish’s mouth. The fish pattern is used because a fish is thought never to sleep and can thus always be awake as a messenger to the heavens. Also used, in the same Confucian temple rites in both China and Korea, is the *pan*, a rectangular block with a deep narrow slit in the side just below the upper surface of the block; these were also used in jazz bands as Chinese wood blocks. Both forms have migrated into our orchestras as parts of the drummers’ kit.

Slit drums are also used for music. The large standing slit drums of Malekula surround the dancing ground, but as well as these, there are smaller slit drums resting horizontally and others small enough for dancers to hold one in the hand and strike while dancing. The Mexican *teponatzli* is also used musically, though this is rather differently made, for it is hollowed from the underside and then

closed with a wooden plate, leaving two tongues free on the upperside, one projecting from each end, with each tongue producing a different pitch. In parts of West Africa there are drums with multiple slits, each a different length and/or width, again to provide different pitches; these have been copied for some of our children's percussion bands. The zoomorphic and triangular slit drums of central Africa are also used musically and for dance.

One form of slit drum seems to be unique to the island of New Ireland, part of the Bismarck Archipelago and thus under the administration of Papua New Guinea. This is the *livika*, a slit drum with three tongues to give four pitches, the fourth produced by the solid end of the block. Unlike any other slit drum, the *livika* is not struck but is rubbed by the player's moistened hands.

Somewhat analogous with slit drums are the tortoise shells of some South American tribes. These are simply the upper and lower shells of the tortoise, and, like the *livika*, they are rubbed by the moistened hands. They seem to be used only as ritual instruments, and, because they are natural objects rather than something artificially hollowed out, they probably should really not be included here.

Small hand-size slit drums of wood or bamboo have been carried in South America, Indonesia, and probably elsewhere, by travellers who do not wish to be endangered if local peoples suspect them of being thieves or spies. They therefore strike the drums to make their passage obvious and innocent, and to signal that they are peaceful travellers.

It can also be difficult to separate wooden animal bells from small-size slit drums. These are widely used around much of the world, since wood is cheaper than metal and in some areas more easily available. They are only differentiated from slit drums by having a clapper suspended inside to strike on the lips. Most are more or less globular in shape, though in Bali the shape in profile is rather like that of a European cocked hat, with a long narrow slit interrupted in the middle of its length by a circular opening in which the clapper can swing. Tubular ones of bamboo, usually with two external clappers, are common in South East Asia. It is arguable that our metal pellet bells might derive from the

more globular forms of wooden cattle bells; certainly we do see wooden pellet bells in some areas.

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