

Steve Marshall has a novel suggestion for the use of finely-crafted but unexplained flint artefacts from prehistoric Britain

THE FLINT THAT ROARED



Above: The author in Avebury, whirling a bullroarer fitted with LEDs

It is an old joke in British archaeology that unidentifiable finds are so often declared to be “ritual objects”. Many were inexplicably buried, or rather “ritually deposited”, in odd places, often with a great deal of effort. Maumbury Rings for example, is a former henge monument now surrounded by the town of Dorchester. When constructed around 2000BC a series of shafts was dug deep into the chalk, then deliberately infilled. The labour involved was immense: some of the 45 shafts were over 10m deep and 4m wide. Those excavated were found to contain pottery, human and animal bones, carved balls of chalk and assorted “flint tools”.

In this case the ritual aspect seems evident – the objects were not thrown randomly into a hole, but carefully placed according to some system or

pattern; they were organised into groups and deliberately layered at different depths. Why? The fact is, although ritual is generally assumed to have been an important part of prehistoric life, we actually know nothing about it. Why such enormous effort went into building monuments and what rituals, if any, were performed at them, still remain mysteries. So how did archaeology ever come to assume that ritual was so important in prehistory?

Modern archaeology developed during the 19th century along with anthropology – “the study of what it is to be human”. The two disciplines complemented each other and have always been closely linked. Early anthropologists assumed that what was going on in prehistory could be seen by visiting what they called “primitive

tribes still living in the stone age”. They found that myth, ritual and symbolism were paramount, far more complex than anticipated, and often incomprehensible. But in the 1890s as data were gathered from around the world, an apparent fact emerged: almost every culture, on every continent, has used the bullroarer.

Curiously, although the instrument was presumably invented independently in several places, its lore was strikingly similar the world over. It had great ritual and magical significance and was usually exclusive to men, who used it in initiation ceremonies and surrounded it with great secrecy. Women were often not permitted to see bullroarers or even to know they existed – sometimes on pain of death.

In its simplest form the bullroarer is



a slat of wood with a hole at one end tied to a length of string. One can be made easily with a wooden ruler. After giving the string an initial twist, the player whirls the bullroarer horizontally above their head. It spins rapidly on its long axis, producing a low musical drone combined with a fluttering buzz. This sound was often said to represent the wind, or thunder; most commonly it was regarded as the voice of the ancestors, or of a god.

Bullroarers vary greatly in size and shape, though most are 6–60cm long and 2–10cm wide. Some are bar-shaped; others resemble a leaf or a fish – in some cultures the word for bullroarer also meant “fish”. The bullroarer existed in classical Greece – it was presumably diamond-shaped, as its name *rhombos* is the root of our word rhombus. A common design feature is to round the edges of one or both sides. This produces a louder sound and encourages the bullroarer to spin – it becomes an aerofoil, shaped like the wing of an aeroplane.

The string also plays an important part. If laid (twisted) string is used, the spinning of the bullroarer winds it as tight as it can go; the bullroarer then stops momentarily before spinning in the opposite direction, driven by the untwisting string. The process repeats as the direction of spin reverses yet again. This affects the sound: the faster the bullroarer spins, the higher its pitch. Even whirling the bullroarer at a constant speed produces a note that goes up and down in pitch as the string winds and unwinds. Each time the direction of spin reverses the drone drops briefly to a flutter, then rises again. The sound of one bullroarer is strange, but a group of them whirling simultaneously has an eeriness that justifies the “voice of the ancestors” description.

So what does all this have to do with British archaeology? Well, I believe that many of the mysterious “ritual objects” discussed earlier are actually bullroarers. All over Britain, from the neolithic to the bronze age, flint knives



Above left: Bullroarers collected in Britain in the early 20th century

Above: Bullroarers from Papua New Guinea

Below: The planoconvex flint knife in Avebury that started it all, with its aerofoil cross-section

were “ritually deposited” in their thousands, many showing no signs of use as a knife. There are two types: planoconvex knives are shaped on one face, flat on the other; bifacial knives are worked on both sides. Both types were sometimes polished smooth. They come in a variety of shapes – the very same shapes used for bullroarers.

A polished planoconvex knife in the handling collection of the Alexander Keiller Museum, Avebury, first led me to make the connection. Realising that its profile was an aerofoil, I made a copy in cement. The string was tied to an embedded piece of wire for convenience but wet rawhide lashed to the flint would shrink and hold just as firmly. I whirled it around my head – it was a bullroarer! I made several more copies in different shapes and sizes, based on actual flint knives, and all worked as bullroarers. Bifacials were the loudest.

But my experimental models all resembled polished knives – would a roughly knapped flint also make a sound? There was also the question of how a string may have been attached. An open day at the Wiltshire Heritage Museum, Devizes, led me to Karl Lee, a professional flint-knapper and expert on neolithic technology. Karl was enthusiastic about the idea: with his bushcraft skills he had already made bullroarers of wood. He knapped me a



planoconvex knife that is sharp enough to cut meat, and fitted a string-holder. A short piece of wood was notched to the shape of the flint and lashed tightly with fine twine; the joint was reinforced by covering it with a glue made from beeswax and pine resin – neolithic Araldite. The knife works beautifully as a bullroarer: it is loud, and satisfying to use.

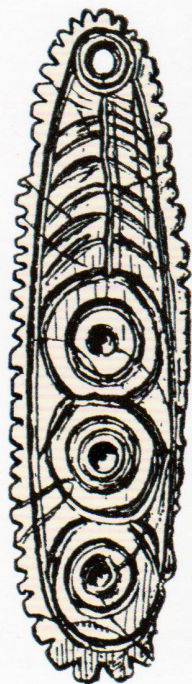
Considering the ubiquity of bullroarers around the world it would not be surprising to find they were once used in Britain, but what evidence is there? The bullroarer is among claimed palaeolithic musical instruments. Leslie Armstrong's 1936 identification of one from Pin Hole Cave in Creswell Crags did not find favour (it has been interpreted as a bone digested by a hyena). However an engraved reindeer antler plaque from La Roche de Birol in the Dordogne, France (around 15,000 years old), looks remarkably like some recent examples of wooden bullroarers.

Prehistoric wooden examples are unlikely to survive. But as anthropologists enthusiastically noted, the wooden bullroarer was being used here in the early 20th century, though (according to Andrew Lang in 1884) "only as a toy popular with country boys". In Oxford, the Pitt Rivers Museum has a fine collection of bullroarers collected from around Britain in the 1930s; most are rectangular, with notches or serrations along the sides. Mere toys in Britain, identical bullroarers were being used then in Spanish religious ceremonies. It has been suggested that when

Above: A planoconvex knife fitted with a string-connector, made by Karl Lee

Below right: Karl Lee flint knapping at the Wiltshire Heritage Museum, Devizes

Below: Carved ivory from Saint Marcel, Indre, France, which WJ Sollas proposed as an ice age bullroarer, in *Ancient Hunters & Their Modern Representatives* (1911) (L c 6cm)



Shakespeare described a "strange... humming" and "a hollow burst of bellowing, like bulls, or rather lions" in *The Tempest*, he was evoking the sound of the bullroarer.

Although it is plain that flint knives can be used as bullroarers, whether they actually were is harder to prove. Organic glues rarely survive, but perhaps there are flints in museum collections that, to an eye more expert than mine, would reveal traces of having been once lashed to a string? We know that suitable twisted string was available, for it was used to impress patterns into pottery (and actual string some 8,000 years old has been found

off the Isle of Wight: *News*, Jan/Feb 2009).

The fact that knives can also make a sound may even have been a cult secret, known only to the initiated. Researchers have shown that megalithic sites can have unusual acoustic properties. It is not hard to imagine the stones of Avebury lit by torches and echoing with the sound of bullroarers as the men performed their rituals.

Steve Marshall is a writer and musician who composed for films in the BBC Radiophonic Workshop. He is writing a book about Avebury with Pete Glastonbury

