

## Possible Origin of the Megalithic Yard

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It has become apparent that for some reason, particular units of length became of great importance to the tribes of Britain around five thousand years ago. The Old Yard of 2.97 ft. and related units such as the Old Foot of 0.99 ft. and the Five Foot unit of 4.95 ft. were used in the north and west of these islands, whilst the Megalithic Yard - 2.72 ft. - was used in the south and east. The latter unit eventually displaced the Old Yard about the middle of the third millennium B.C. and it seems to have been used for subsequent ring building. In all probability the different tribes had similar religions but with enough differences to cause conflict. The difference in the use of units seems to have been one of them, not perhaps one of the most important ones, but one that enables the tracing of the distribution of the believers. There appear to have been tensions between the tribes around Stonehenge and those only twenty miles to the north around Avebury. The Stonehenge tribes seem to have been victorious and then quickly spread their influence northwards, ending in the Orkney Isles, where they had a great celebration and feast.

The origin of the Megalithic Yard is obscure and numerous attempts have been made to link it to other units in use in the old world, but none has been convincing. To these I will add another suggestion. Bows and arrows were probably in use before the Britain was colonised after the ice age, when they were almost certainly made by some members of the family groups and they used whatever materials were locally available. These weapons were very useful, but far from the effective killing weapons that they later became. Subsequently, when groups became larger, some members would get a reputation for producing superior weapons and would, from time to time, produce better bows and arrows for other locals, but it was still a "cottage" type industry. Only when bows and arrows were produced in large numbers, by teams of dedicated workers, would the full potential of the weapons be approached. For example, several types of wood can be used to make a bow, but it is generally accepted that yew wood was the best, but not all parts of the yew tree were equivalent. It was found that the best wood came from the junction of the heart wood and sap wood, as the hard wood could better stand compression and was used on the inside of the curve of the bow and the sap wood could better stand tension and was used on the outside of the curve. The shape of the bow was arranged so that it curved evenly along its length and the thickness of it determined the force required to draw the bow and make it suitable for the archer.

Arrows may look to be simple things, but different arrows can behave quite differently, so it is essential to have standard arrows, in order that that the archer knows what to expect when he shoots one. Heavier arrows may have more impact, but they travel less quickly and have shorter ranges. Larger flight feathers tend to slow the arrow down more and so reduce the range. The design of suitable arrows then restricts the dimensions to a fairly narrow range. The arrows have to be long enough to enable the maximum draw to be achieved, but not long enough to carry excessive weight. The thickness should be small enough to keep down the weight, but it must be rigid enough to withstand the large force, perhaps up to about a hundred pounds, that it experiences at the moment of release. It must also have to have a little extra length so that the arrow head can be fitted. It should also be smooth and have minimum size of feathers to give minimum air resistance. Finally, if the arrows are to be used in a conflict with another tribe they must be produced in very large numbers. During the wars with France in 1359 records show that 850,000 arrows, 20,000 bows and 50,000 bowstrings were supplied to the Tower. Probably during the war's active periods, the arrow production rate would exceed 1,000,000 arrows per year. (This information is from *The*

*Longbow* by Robert Harris). A large number of arrows were recovered from the ship Mary Rose. The shorter arrows had a length of 29.5 inches and the longer ones a length of 31.5 inches. The longer ones outnumbered the shorter ones by factor of three so they would seem to be the more usual arrows. By comparison the Megalithic Yard was 2.72 ft. or 32.64 inches. Measurements based on my own grandsons indicated that arrows had to be at least 31.5 inches long.

My suggestion is that the tribe close to Stonehenge started producing bows and arrows on an industrial scale and produced them to exacting standards. Not only did they produce weapons that could shoot farther than the weapons of other tribes, but they made arrows in sufficient quantities to ensure that they did not run short. A thousand archers each accurately launching ten arrows a minute at an adversary, who could not strike back because their bows were not good enough, and also having enough arrows to keep up the assault for prolonged periods, would be a terrifying prospect. There is not much evidence to support this idea, but who has looked for such? Around Stonehenge large amounts of bluestone chippings have been found. Could these be the result of producing stone arrowheads from the bluestones? It would be of interest to see if the type of chippings support this idea. What is certain is that if there is any truth in this idea, then the standard arrow could have become the standard measurement unit and would automatically be carried wherever their warriors went. This then could be the length that Thom discovered, which he called the Megalithic Yard.

What seems fairly certain is that, in the mid third century B.C. the use of the Megalithic yard spread northwards, whilst the Avebury complex fell into obscurity, as did the use of the Old Yard. The above arguments do not mean that the Megalithic Yard was only adopted immediately prior to the northward invasion. It seems that it had been in use prior to that in southern and eastern England for a considerable period, but only later was the intensive production of bows and arrows developed into a major industry. It is possible that some tribes hedged their bets. Castlerigg stone ring for instance had a perimeter of 110 Old Yards, which is 120 Megalithic Yards. This is possible as to a high degree of approximation 11 Old Yards equals 12 Megalithic Yards. Other examples can be found in parts of Scotland.

$$(11 \times 2.97 = 32.67 \quad 12 \times 2.72 = 32.64)$$