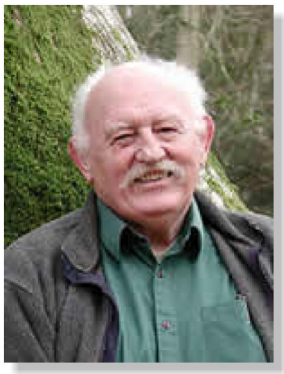
Jon Appleton



This site brings together a kaleidoscope of ideas derived from 60 years of enquiry: it shares insights into fields as disparate as:- Archaeology, Landscape alignments, Megaliths, Henges, Prehistoric measurement, Astronomy, Mythology, Calendars of the past and Seasonal celebration.

Click here to contact Jon

A String of Ideas

Adapted from a magazine article in 1985

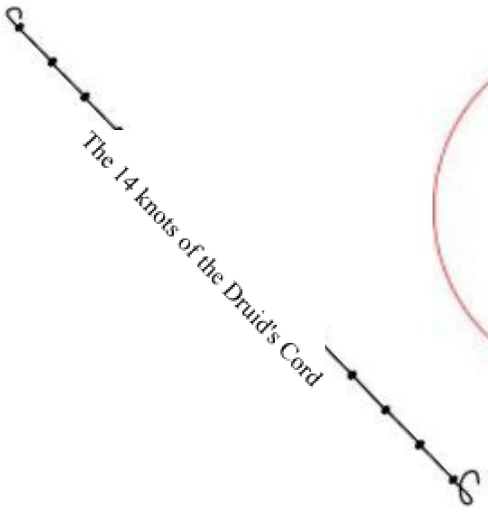
In May, when leaves are dressing the trees in fresh bright green and dandelions are scattering gold on the grass, the 10 stars of Perseus lie in the north at midnight as the star Algol brushes the horizon beneath them. It was the time of a total lunar eclipse and I was camping with friends in a field in the West Country when a series of serendipitous coincidences led me to some significant insights into the units of measure used by the ancient people who laid out the megalithic circles of western Europe. In the afternoon the shadow of the earth darkened the face of the moon. Altair rose in the East at sunset, a companion for the dusky faced lunar bride. Later, after the ruddy, eclipsed moon had risen, the wedding veil was drawn back and her bright gaze fell on the dancers and the fire that celebrated the renewal of the energies of the Dragon and the Bull at Beltane.

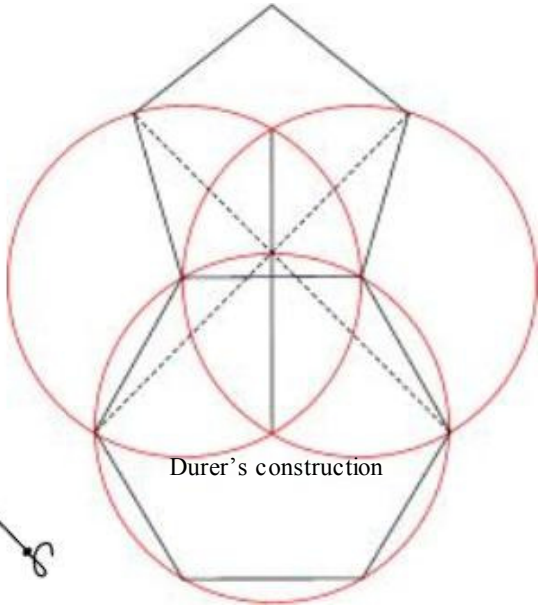
By chance I had, a couple of days earlier, spent an exciting and magical hour, at dusk, helping to catch a lively carthorse called Atlantis who was more inclined to remain free in his five acre domain than be collared and return to a life of work.

On the following day I had been drawn into a discussion about how to construct a regular pentagon with just compasses and a straight edge. (Durer's construction) and how this related to the significant and sacred Vesica Pisces formed by overlapping two circles.

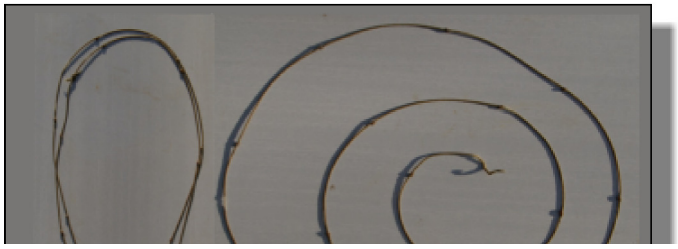
This led on to consideration of the Druids Cord, a length of knotted string of 13 equal divisions which can be used to set out on the ground a variety of significant and useful forms such as right angles, pentagrams and seven pointed stars.

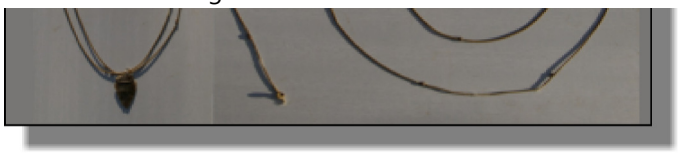
The Druids Cord

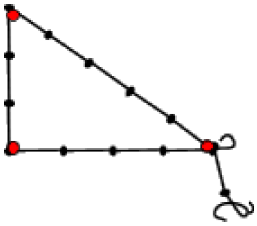




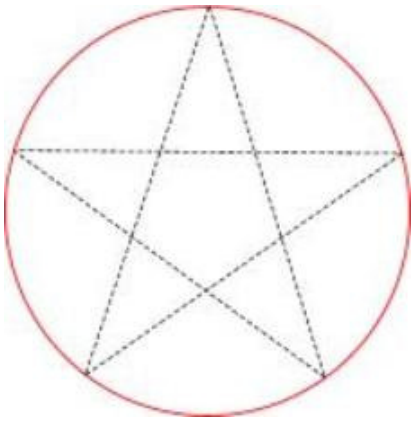
Durer's construction







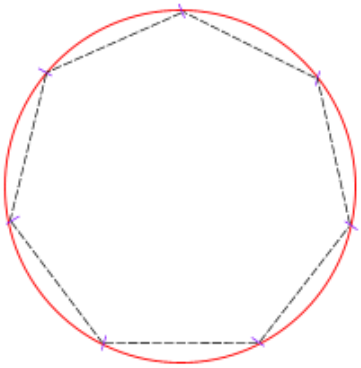
Setting out a right angled triangle



Setting out a Pentagram

Radius 13 Diameter 26 Perimeter of pentagon 10x8

The pentagram was the emblem of the School of Pythagoras and a symbol of the Mysteries.



Setting out a Heptogram

As a result of this I promised to make such a "cord" and send it to a friend who wanted to be able to set out a pentagram quickly and easily without complicated measurement. So, a few days later, I sat down to start knotting. Immediately a decision had to be made about the length of the divisions in the cord. Three inches, six inches or even ten of the very modern centimetres? The overall size of the circle drawn by the stretched cord would have to be a convenient one for use on the ground and a diameter of about eight feet felt right. After some work with the compasses it seemed that a unit spacing of knots on the cord of three and ¾ of an inch was needed. Then I remembered Atlantis and the ancient and traditional measure of a "hand" with which horses are measured. Twice 13x4" is 104" or 8 feet 8 inches; not a bad diameter for a circle. The cord, with the two bits beyond the end knots was 4' 8" long. This is about the length of a dressing gown cord and handy for tying round the waist or, when tied in a loop, hanging doubled round the neck or even sixfold round the wrist. All in all a very practical object based around the dimensions of the average person's body.

The way of setting out Megalithic "circles", described by Alexander Thom in his important books, based on his lifetime's study and accurate surveys of hundreds of sites in Britain and France, requires the use of right angled triangles. I wondered whether there was a connection between my "hand" and his Megalithic Yard. The MY, he says, is 32.64 inches. Four into that goes 8.16, approximately eight. So I tried 32.64 divided by eight. It equals 4.08". So perhaps there were 8 megalithic hands in a Megalithic Yard. Thom had established the value of the MY by carefully measuring every megalithic structure he could get to and by plotting all these measurements on a graph he showed that where certain dimensions clustered on the plot they were multiples of a particular length.

On page 45 of his Megalithic sites in Britain he draws attention to the concentration of "ring" circumferences at 12.5, 25, 37.5, 50, 62.5,75 and 87.5 MY. All multiples, he points out of 12.5 MY. These figures had always left me feeling uneasy because it seemed unnatural to have a half unit included. Experimentally, at this point I tried multiplying this series of perimeter lengths by 8. To my surprise and delight out popped the following set of numbers. 100, 200, 300, 400, 500, 600, 700. So 12 ½ MY = 100 M Hands. That looked like a more rational and intentional sequence and unexpectedly showed a use of a decimal system. So, despite the fact that the MY seemed to be divided into eighths (MH) and thirty two M Inches, some of the calculations were done in tens and hundreds. It looked as if the measuring system was based on halving and rehalving a basic unit but the calculating system was different.

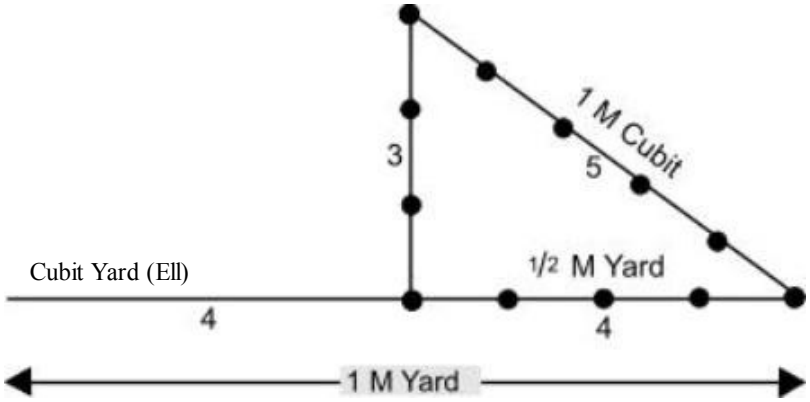
However this was not the end of my journey of discovery. A few years previously I had met Martin Brennan with John Michell at the Leyhunter Moot in Hereford and had become very interested in the work Martin had done in the Boyne Valley in Ireland.

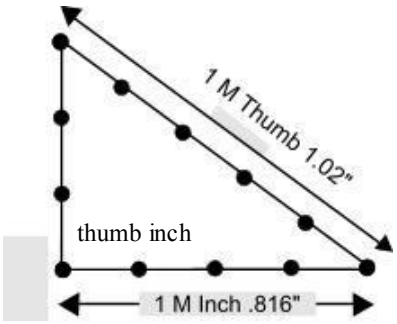
Part of his work led him to propose, in his first book Boyne Valley Vision, that the builders and carvers of the beautiful and enigmatic designs on the stones of the mounds and chambers at New Grange, Knowth and Dowth had used two short and interrelated measures which he called A and B.

A measured 1.0125" and B was 1.4464". Both subdivisions of a larger "C" measure of 20.25". Now, because his A measure was quite close to my MI or "thumb" of 1.02" and the ratio between that and Thom's MI of .816" was exactly 5:4 perhaps there was a similar relationship between the ancient Irish measures that Martin had identified and the British ones.

As I examined a series of Pythagorean triangles some interesting figures began to appear. If a 3,4,5 triangle is drawn with an hypotenuse of one MY the opposite side is 20.4". Not far from Martin's C and exactly twenty of my M Thumbs. If the C

measure was really 20.4" and the A was 1.02 then, by the root 2 calculation that Martin used B would be 1.4425". Pretty close to the value that he proposed. However the two important common dimensions remain the "thumb" of 1.02" and





the "cubit" of 20.4" which relates through the 3,4,5 triangle to the Megalithic Yard.

Alexander Thom has also suggested that a length of 2.5 MY, which he called the Megalithic Rod, was used by the builders of the rings, mounds and dolmens of the Neolithic and early Bronze age. Two and a half MY is 6' 9 1/2", a handy size for a surveyors rod. It would look like the ones seen in the hands of the Long Man of Wilmington and is also 20 M Hands long. I can clearly visualize such a staff or rod, marked with hands, subdivided into thumbs being carried and used by one of the "wise" women or men four or five thousand years ago.

However, we now have to take into account the Dalmore bone which was excavated near Callanish stone circle on Lewis in the Hebrides by Margaret Ponting.

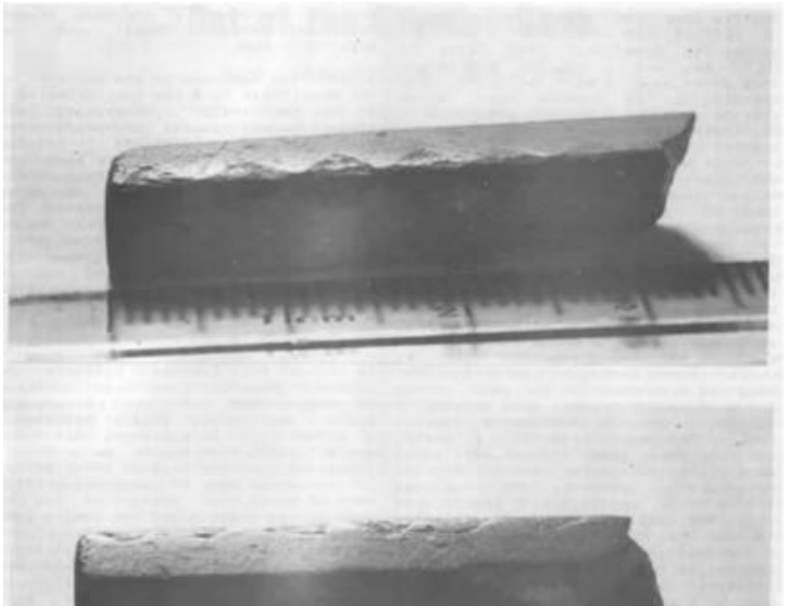
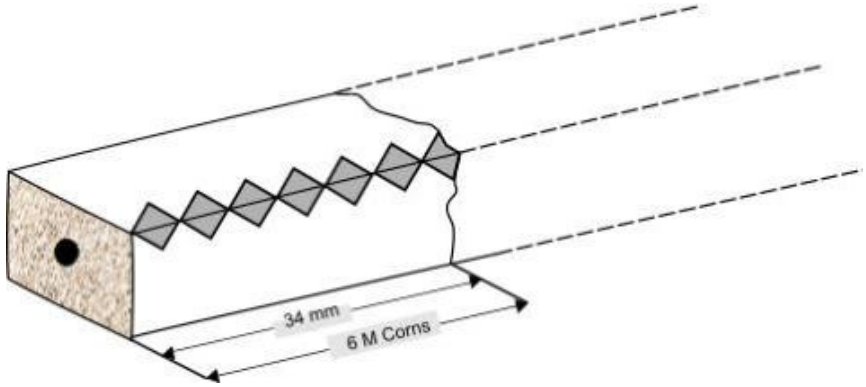


Fig.3 The Dalmore Bone; length 34 mm, marked in ¼ Megalithic Inches. (Photographs by Colin Ramsey)

Reproduced from The Ley Hunter article in issue 101 by Margaret Ponting.

She has spent a lifetime doing invaluable work uncovering and recording the archaeology of this Scottish "Stonehenge". It's a most remarkable and visually romantic example of the widespread practice of creating solar, lunar "observatories" during the Neolithic era in these islands.

The small piece of bone which she discovered has, inscribed on it, regular subdivisions looking like part of a small ruler. These clearly relate to the Megalithic measurement system.



The gradations appear to be very close to .204". This represents one fourth of a MInch or one fifth of one of my MThumbs, a repetition of the same ratio that appears between the MY and Martin's C measure or cubit. A suitable name for it might be the "corn" because, although it is smaller than the barleycorn which was .37 of an Imperial inch, I think it was likely that a corn or grain of cereal might have provided the conceptual basis of such a small measurement. I did toy with the idea of giving it the name "Meg". That's short for Margaret and also Megalithic, take your pick.

So, unless some archaeological discoveries are made in the future which reveal artefacts with even finer subdivisions we seem to have got down to the smallest common denominator for all the measurements used in the Neolithic era.

In the tables below both the MY and the corn are used as a base. They express all the lengths as fractions and multiples of them and clearly show their interrelationships.

1 Corn	= 0.204"		
4 Corns	= 1 M Inch	5 Corns	= 1 M Thumb
5 M I	= 1 M Hand	4 MTh	= 1 M Hand

20 M I	= ½ M H	20 MT	= 1 M Cubit (C)
40 M I	= 1 M Y	8 M H	= 1 M Yard
2½ MY	= 1 M Rod	20 M H	= 1 M Rod

1 Corn	= MY ÷ 160			
1 MI	= MY ÷ 40	=	4 Corns	= 0.816”
1 MTh	= MY ÷ 32	=	5 Corns	= 1.020”
1 MH	= MY ÷ 8	=	20 Corns	
1 MCubit	= MY ÷ ⅘	=	100 Corns	
1 MY	= MY	=	160 Corns	
1 MR	= MH x 20	=	400 Corns	
1 MR	= MY x 2½	=	400 Corns	

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