Twmbarlwm and associated environs: Part 3
Normans:-Castles and Churches.

In this article we look at the continued use of some locations and an expansion from these in terms of measured distance and angles across the landscape. Primarily we deal with Norman motte and bailey establishments, castles and churches.

Background

During the initial Norman expansion into Wales both the 'ringwork', basically a surrounding bank and ditch and the motte were utilised as bases. These varied in size from a small mound and ditch such as at Trellech and at Mynyddislwn [Twyn Tudor] to very much larger affairs. Some defensive hill forts were utilised such as those at Ruperra Castle at Draethen south west of Twmbarlwm overlooking the St Mellons area and Lodge Hill at Caerleon where in 1801 a motte noted on the early OS map as a tumulus, described as 12 yards high in a report by Coxe was clearly in view. This was gradually eroded and no doubt its stone used for local building over the years and the maps from the immediate post WW2 era show that it had completely disappeared by then. Likewise the motte and Bailey to the north of Caldicot near Crick is now only seen in outline of the original bailey shape with no motte remains. Here it appears likely that the material was utilised on the adjacent railway embankment. This motte and bailey was initially constructed shortly after the English invasion with the castle site at Caldicot being commenced some 50 years later.

There is little doubt that small farmsteads were also adapted for the 'ringwork' and / or motte and bailey design. While the records do not show such activities and without archaeological dig it is almost impossible to prove, the appearance of some of these imply this. That at Crick is a reasonable example, this one also being bounded by streams on two sides.

These smallholdings were almost certainly the domain of small family groups and not initially set up as defensive emplacements even though the Welsh were frequently fighting among themselves. The internal squabbling of the nation was the reason that the Normans initially took over the south of the country so easily, the men of South Wales were in mid and North Wales fighting an internal war.

The motte was not always surrounded by a bailey and in such cases was probably utilised as more of a lookout post. This applied, for example, to Twyn Tudor at Mynyddislwn. Occasionally a motte would have had more than one bailey, perhaps to keep horses and other supplies separate from the main living quarters? Nonetheless, in general a motte and bailey were part of the same set up.

While the motte and bailey castle has been generally seen as a part of the 'attacking methodology' of the Norman military machine, this was not always the case. Not all were placed in locations that gave a military advantage and as noted some of these would have been adaptations of pre-existing farmsteads. It appears that a number of farmsteads may have been taken over for adaptation to a motte and bailey for administrative purposes and not as a military base. Once a land had been taken by the military, administration was the next step and centres for such tasks were essential, hence the localised motte and bailey with buildings in a non military position. These would later be subservient to the larger stone castles that dominated much larger land areas.

Langstone Court in South Gwent would be a good example of this sort of scenario. It is overlooked by a hill giving direct access for weaponry to be directed to inside the bailey. A perusal of OS maps will reveal that there are other similar examples that cast a great deal of doubt upon the commonly assumed singular military purpose of these establishments. Twmbarlwm is not in an ideal military position as while it may be defensible, if surrounded the occupants would be completely isolated from any assistance. This would almost certainly have been utilised as a centre of administration after the main thrust of invasion was over. The site was highly visible from as far away as Somerset across the Severn Estuary and as such was a dominating feature and effort would have been made to ensure that that dominance was very obvious.

The name Langstone Court is indicative of an administrative centre as also is Henllys Court, which is the nearest village to the top of Twmbarlwm. Hence from these examples it seems that care is required in the definition of these sites, many would have been for admin and not directly involved with military activity.

Setting out, motte and bailey and church building

This is the intriguing part of this investigation and involves measuring over quite large distances. The Welsh were also quite adept at this as the *Law of Hywel Dda* implies. What we are looking at is the ability to measure over many miles of countryside irrespective of topography between sites - accurately. Just how this was achieved at that era is not fully understood but it certainly did occur as the modern Ordnance Survey maps reveal. Historians of science need inform us of the tools available at this time for these operations.

Twmbarlwm was almost certainly one of the first motte and baileys to be built in the region of South Wales. By 1070 the Castle at Chepstow was established, a substantial motte and bailey had appeared at Crick and ten years later a new military building at Caerleon ensured domination there, the hill fort at Lodge farm with its additional motte having a position overlooking the village with the new castle location being immediately adjacent to the river crossing point. Circa 1090 the Earl of Gloucester, Robert Fitzhamon erected a motte at Stow near St Woolas in Newport which was placed exactly 5.28 miles from the Cairn on Mynydd Machen. Coincidental measure? Maybe, but this motte was also exactly half that distance at 2.64 miles from the motte built within the confines of Lodge Hill Fort Caerleon and 5.04 miles from the top of Twmbarlwm. [Half of the 10.08 mile measure between St Woolas cathedral and Caerwent church both sites predating the Normans]

With such land take over administration would be next on the cards and a visually dominant position over the captured lands would proclaim ownership of the territory loud and clear.

Twmbarlwm would have been ideal.

While the Welsh eventually had a good stab at fighting back things were relatively quiet for a few decades in the area of Gwent which is apparent from the fact that by the early 12th century a number of churches were built in the south and middle of the county. This would not have happened during a military campaign but only when the fighting was thought to be finished. Monasteries were also set up at Tintern, Goldcliff and Llantarnam during the 12th century.

So the Normans were busy not only with invading but with the setting up of a completely new administration that involved both church and Lordship. It is notable that many of the administrative elements are spatially connected

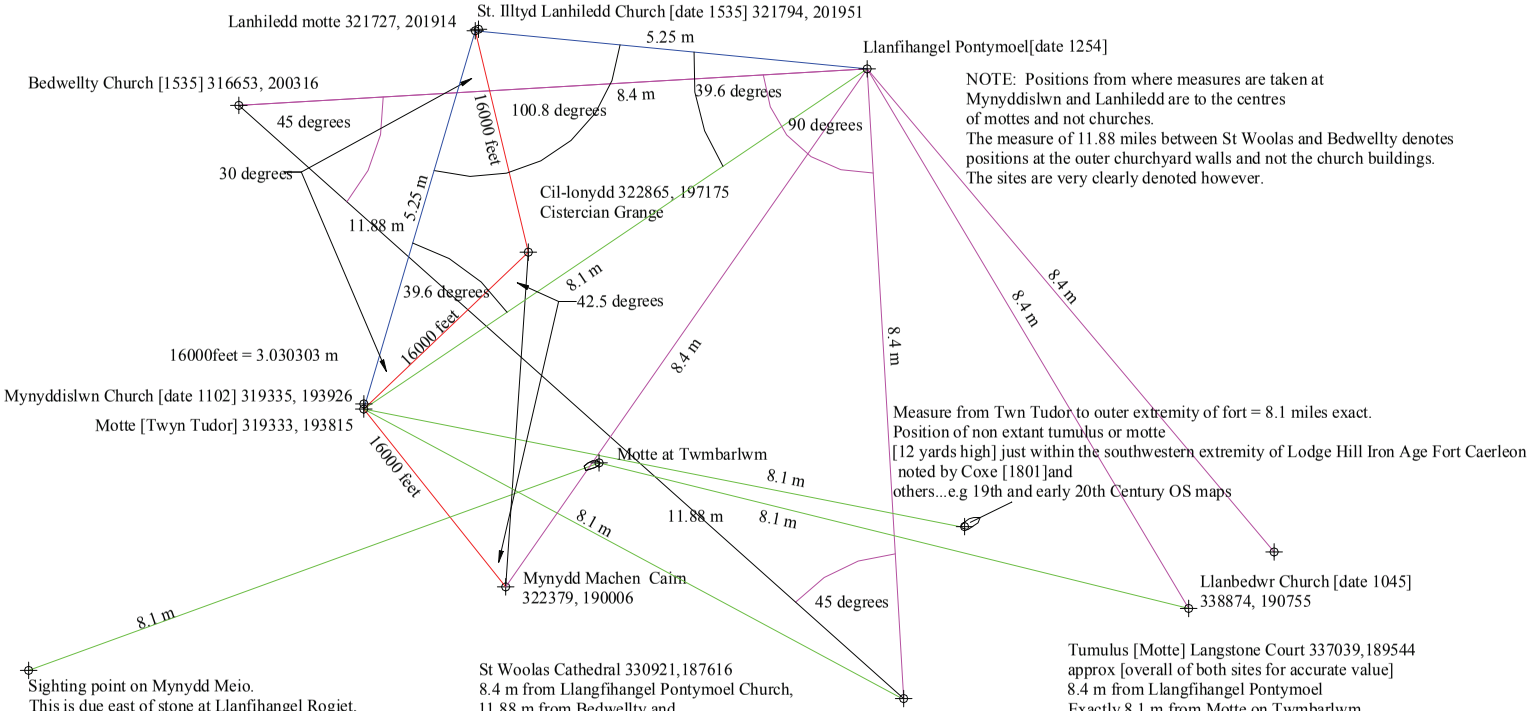
The remains of the Norman motte on Twmbarlwm in 2010.

Encampments have been used and re used over the centuries. Normans used old farmsteads and Iron Age forts. Add to this the fact that a mound 4.8 miles due east of Twmbarlwm has a bungalow sitting on its peak, and as noted above, Lodge Hill and Ruperra were re-used by the Normans and the concept of recycling appears to have been in vogue for a very long time. Romans built roads were over existing tracks and at Avebury we even have a complete village within a stone circle and henge. It is therefore apparent that the idea of a continuation of site use ruled development, and many mottes and mounds have slumped so much they are barely visible or have completely disappeared today, due to stone robbing. Bentley Green, seen in association with the set of Pleiades over Twmbarlwm in the Bronze Age is now little more than a low patch of mud.

There of course are practical reasons for this…why quarry stone when it is piled up in a mound of soil, specifically when the pieces are of a usable size and require little working? Why set out a completely new road when a track already points in the right direction? And of course we had the Papal Bulls instructing the early Christians to build churches on ancient sites, more a case of adaptation here than recycling but the result was similar. Pre Norman churches here were Welsh but sites have been reused continually and many old Norman churches were in fact built on pre-existing Christian sites such as St Woolas and St Iltyds.

As will become apparent, this raises questions regarding the setting out ability of our earlier forbears as many older churches fit spatially with those built by the Normans. If early churches were on ancient sites and they comply [as often is the case] with later setting out criterion then these ancient sites may have utilised the same rules and measures as applied to the later buildings and that certainly does not fit with any accepted conventional historical knowledge. However, the instructions went out from Rome and there is no doubt that they were obeyed. This would bear considerable further investigation. The evidence is clearly portrayed on the OS maps for all to see.

So were our forbears smarter than we have been led to believe? Certainly Stonehenge displays much regarding measures [although this is denied by some with no knowledge of ancient metrology] but what we see in this landscape study is an expansion from feet or inches to counts in miles. The investigation reveals something along the lines of 21.12 inches or 1.76 feet which is a cubit value of 1/6 of the reed measure of 10.56 feet. This 10.56 foot measure gives the design centres of the sarsen lintel upright supports around the circumference of Stonehenge. Across the landscape we see this 21.12 inches being expanded to 2.112 miles. This is quite a commonly used unit for church and other setting out across the landscape as the OS maps will confirm. As a cubit this was commonly used in ancient times and appears in European Christian buildings. 1.056 miles is also seen as is 10.56 miles one example being the distance from St Woolas Cathedral to St Illtyd's Church and the Norman motte there. There is much that is not understood regarding this setting out and equally there is much that is ignored and the use of maps is step in the direction of discovery. A foot value of 1.05 British feet, another common value in the ancient world, gives a step [2.5 feet] of 2.625 feet or half of 5.25 seen in miles on the maps as spacing between some sites. The Welsh mile was 0.75 of the British and hence 5.25 miles British results in 7 Welsh miles. Not only measures need examination but angles between sites require careful recording. Drawings on the following pages will reveal some intriguing setting out here in Gwent. The work involved in this must have been very great and the results of the endeavour by unknown past artisans was highly accurate. We see the reuse of some old sites and the setting up of new structures but in both cases the accuracy of measure and angular setting out over miles of highly undulating country takes a lot of explaining. A call to the historians of science here-what instrumentation was available to the Norman engineers for such activities?



NOTE: Positions from where measures are taken at Mynyddislwn and Lanhiledd are to the centres of mottes and not churches.
The measure of 11.88 miles between St Woolas and Bedwellty denotes positions at the outer churchyard walls and not the church buildings.
The sites are very clearly denoted however.

Measure from Twn Tudor to outer extremity of fort = 8.1 miles exact.
Position of non extant tumulus or motte
[12 yards high] just within the southwestern extremity of Lodge Hill Iron Age Fort Caerleon noted by Coxe [1801]and
others...e.g 19th and early 20th Century OS maps

Sighting point on Mynydd Meio.
This is due east of stone at Llanfihangel Rogiet, Wilcrick Hill, Llanwern and Lower Machen Churches.

11.88 miles is the diagonal of a square 8.4 miles perside.
This sort of setting out is seen elsewhere in the locality.
11.88 / 8.4 = square root of 2 =1.4142857142

St Woolas Cathedral 330921,187616
8.4 m from Llangfihangel Pontymoel Church,
11.88 m from Bedwellty and
8.1 m from Mynyddislwyn Motte is to just outside the north west corner of the churchyard.
10.08 miles from Caerwent Church building to building.
10.56 miles from Motte at St Illtyds Lanhiledd
10.56 miles from Cardiff Castle

Tumulus [Motte] Langstone Court 337039,189544
approx [overall of both sites for accurate value]
8.4 m from Llangfihangel Pontymoel
Exactly 8.1 m from Motte on Twmbarlwm

This site is placed directly on the line from Twmbarlwm to Llanfihanmgel Rogiet Standing Stone for no apparent topographical reason. It is a poor defensive position directly overlooked by a hill to the west.

The dimensions on the illustration of the region surrounding Twmbarlwm are interesting as not only specific distances are involved but also specific angles. The angle formed by the triangle between Llangfihangel Pontypool, St Illtyd's 'motte' and Twyn Tudor measured at Llangfihangel Pontypool is 39.6 degrees or 39 degrees 36 minutes. This is identical to the opposite angle and Mynyddislwyn'motte'. The angle at St Illtyd's is therefore 100.8 degrees or 100 degrees and 48 minutes. It is unlikely in the extreme that that these angles and their associated distances are the product of accident even allowing that approximate positions may be denoted by topology. Therefore it is apparent that these positions have been set out deliberately.

Measures that are numerically related to these angles are seen in the ancient and mediaeval worlds quite commonly. Here the count of 10080 units of whatever may in use is common and 1.008 British feet [what John Michell termed the short 'Greek' foot] was frequently used as a base unit in the building of monasteries. 3960 was recognised as Earth radius in British miles prior to the French surveys of the planet for the purpose of metrication. [See the book *Measurements of the Gods* for detailed info regarding ancient measure and its derivation.]

- The dimensions at St Illtyd's and Mynyddislwyn are to the centres of the mottes and not to the churches. The distance between Llanfihangel Pontymoel Church and Twyn Tudor, which is the motte at Mynyddislwyn is replicated between the sighting spot at the top of Mynydd Meio [as near as can be ascertained] and the motte at Twmbarlwm and between the motte at Twmbarlwm and the motte and Langstone and additionally [possibly coincidentally here][between Twyn Tudor and Lodge Hill Caerleon.
- A triangle formed via Mynydd Islwyn motte [Twyn Tudor], Mynydd Machen Cairn and the grange at Cil-onydd has base angles of 42.5 degrees with apex angle at Mynydd Islwyn being 95 degrees.
- The distance between Llangfihangel Pontymoel Church and:-
  Bedwellty Church [overall of church buildings]
  Mynydd Machen Cairn [exact]
  St Woolas Cathedral [exact]
  The motte at Langstone Court [here the overall of both sites]
  Is 8.4 miles
- In conjunction with the above, the relationship between Bedwellty Church. Llangfihangel Pontymoel Church and St Woolas Cathedral is a right angled triangle with two sides of 8.4 miles exactly and the other being geometrically dictated to be 11.88 miles.
- The distance of 8.1 miles is seen repeated between Mynydd Islwyn motte[Twyn Tudor] and:-
  Llangfihangel Pontymoel Church,
  The extreme Western Edge of Lodge Hill Fort [site of motte and 2.112 miles from Llanhennock Church]
  Position just outside north west edge of St Woolas Churchyard.
  And also between Motte at Twmbarlwm and:-
  Motte at Langstone Court
  Peak of Mynydd Meio [sighting spot]

There are five instances of the use of 8.4 miles, five instances of the use of 8.1 miles two instances of the use of 5.25 miles plus repetitions of 3.030303 miles marked as 16000 feet on the drawing of just a small section of the region. The drawing has been minimised and other equally instructive commonalities are to be seen when more information is included. How much of this could feasibly be ascribed to coincidence?

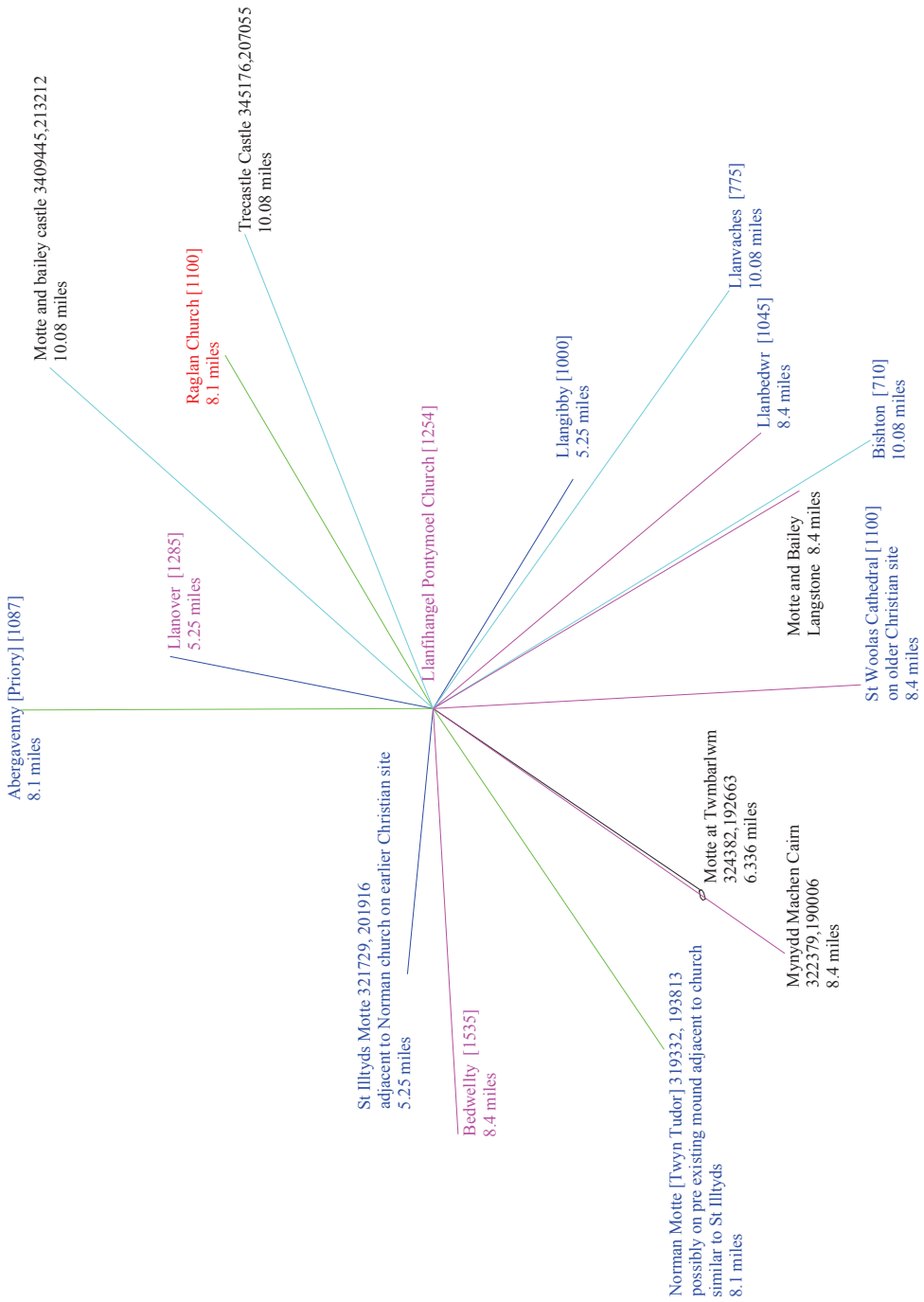
Those who investigate further will discover commonalities of 1.056 miles, [half of 2.112 and denoting the distance between Llanwern and Bishton churches for example] 1.584 miles, [1.056 x 1.5] 10.56, 9.504, and many others that have been scaled up from feet and inches with the feet and inch versions being found at abbeys, cathedrals and palaces and not infrequently on churches. These have yet to be found on castles however. There is a tradition that those who built palaces and religious structures refused to work on castles and the evidence of the measures agrees with this,

after many years of investigation the author has yet to find any meaningful measures that are part of the accepted cannon of units on one of these castles while churches, palaces etc regularly display such figures.

Michell gave names of Roman, Greek and Egyptian to the measures that he evaluated but these are for ID purposes only and do not in reality indicate their exclusive use in these regions. The measures, as would be necessary for trade, were international.

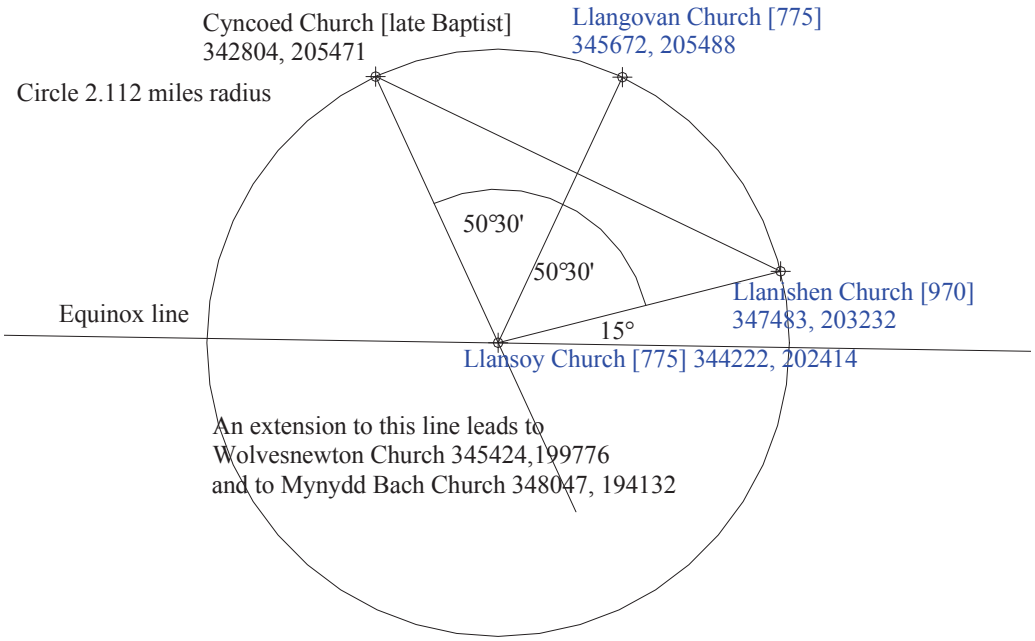
Frequently feet and cubits are utilised in conjunction with numbers from other sets of values and it then becomes confusing regarding which was the unit and which was the count! Why this was done remains a mystery but such strange [to us] accomplishments did occur. We have to remember that Egypt was built when ideas of gods were strange to the modern mind and that cathedrals were built when a cure for mad dog was contact with the key of a church-a totally variant mindset. We cannot explore the past with a modern attitude but have to accept what is found and try to explain it in terms of what was understood during the era in question. When it comes to measures that idea raises a problem in that few of us have explored ancient metrology, it is not a part of academic teaching-who can teach it when it is not understood? Hence we have to rely upon the explorations of those outside academia-which is not a bad thing as those free to explore and describe their findings are not beholden to a system that rejects what does not fit with 'accepted' concepts. Hence this exploration of ancient measure, quite easily taken up via maps and old buildings is one where the public can make great contributions to the learning.

A great deal more could be added to this evaluation of a small region of the country but here we shall show just a little more of the type of scenario that we have seen in other regions of Britain.



Some further relationships to Llanfihangel Pontymoel church. Sites are dated and it can be seen that while Llanfihangel Pontymoel may be at the centre of this configuration it is was not the earliest of the sites. In fact in this limited illustration there are nine direct links to pre Norman locations and the same measures across the landscape are repeated after the Norman invasion.

This drawing clearly shows some more of the dimensions that to the modern mind appear strange. Why should a circle of 2.112 miles radius take in these sites and have a church at its centre. The mystery deepens when we examine the ages and types of the sites involved.



Layout of churches centred at Llansoy

What is seen is not quite typical of the church setting out across the UK but is far from uncommon in context and dimension. Dates of churches are seen except Cyncoed which is a late Baptist Chapel. However, this non conformist church appears to have been placed in a location that adheres to the same spatial spacing as the earlier churches in the illustration.

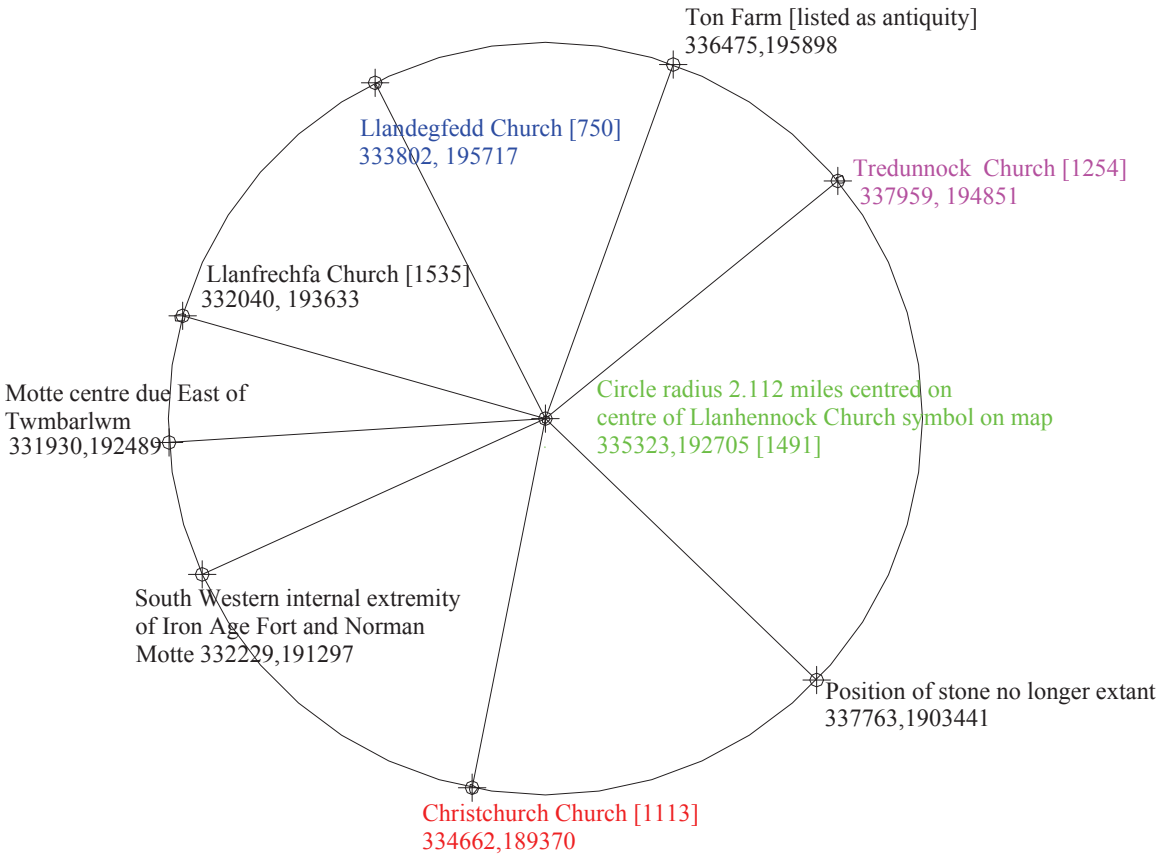
Given that the dates of Llansoy, Llanishen and Llangovan all predate the Norman invasion it is now apparent that the setting out criterion and the ability to measure across country accurately existed here earlier than the Norman church expansion program.

Here a look at the circle of sites surrounding Llanhennock. Again we see a radius of 2.112 miles but as with Llanfihangel Pontymoel, while it is at the centre of the circle, Llanhennock Church was not the first to be built here so what dictated the site positions?

This setting out is a bit of a mystery but cannot be coincidental. It is deliberate but how was it achieved? We assume that a circle centre has to dictated before a circle can be drawn but this is no paper exercise this is setting out over miles of countryside and the dates of the sites varies considerably.

Suggestions please!

A list of other spatial relationships in Gwent is seen in the book Measurements of the Gods and additional relationships are seen below. I have plotted most church, stone, castle and mound sites in Gwent and what is seen on these pages is but the tip of an iceberg. This statement is reinforced when it is noted that similar setting out has been seen in Somerset, Pembrokeshire, Cumbria, Dorset and in Fife, Scotland. Similar scenarios have been reported from France and Scandinavian regions.



So how were these sites set out if Llanhennock was at the centre but was not the first to be built? Were there pre existing structures even if only mounds or standing stones at these sites? And why a circle at this radius?

Llanhennock and Tredunnock are on a midsummer sunrise line from Druidstone but that explains their alignment and nothing else so the questions remain. However one examines this conundrum the answer cannot be coincidence, too many sites of different types which are the same distance from the centre of the circle very clearly indicate that some other factor is at play here…but just what may that factor be?

On the same basis of connected measure we note that St Woolas is exactly 10.56 miles from St Illtyds and 10.56 = 5 x 2.112. Additionally Cardiff Castle is 10.56 miles from St Woolas and the north and south Roman walls here utilised a reversal of the alignment that was used by the Roman builders at Caerwent. This angle is the sunset 20 days before [or after] the equinox [spring or autumn].

The drawing also shows the connections between Twmbarlwm and other sites. Without Twmbarwlm way back in 2500 BC the count of days associated with the Pleiades would not have been set up and the stone at Druidstone would not have been erected. Possibly another calendar count in terms of 20 day intervals was utilised but research has unearthed no evidence for such a count whereas the use of the Pleiades can be seen across all the northern hemisphere. It therefore appears that without reference to the Pleiades alignment set up much earlier in South Gwent, the Roman setting out of Caerwent would certainly have been different and the sunrise line from Druidstone that assists in locating Llanhennock and Tredunnock would not have arisen…as there would be no Druidstone.

Hence Twmbarlwm, the main player in this scenario has played a very large role in landscape operations over the millennia here in South Gwent, it was initially utilised as a sunset position. The Romans used the derived angles for both Caerwent and Cardiff building operations. The protuberance erected by the Normans has likewise been utilised, mainly by the Normans for setting out although even they occasionally used the hill top and not the motte. Indeed, while the motte or 'pimple' is that for which the hill is best known, this is far from what has been its primary importance in the past.

Many have puzzled over this mound and the hill for a long, long time. In the explanations seen here are some answers that are undoubtedly correct, yet these answers raise further questions that require answers, questions that take the investigation into a wider field altogether, into the realms of measures across the landscape and indeed, as these measures have been scaled up from small units, we have raised queries regarding the whole subject of ancient metrology, that hot chestnut that is virtually ignored by academia.

An introduction into the subject which gives explanations and descriptions of measures and a history from a very early time is seen in the book *Measurements of the Gods* by the current author and the use of the same numerical values in religious myth, specifically the flood tale [which is more involved and far more interesting than most would assume] is seen in the companion book *Deluge:From Genesis to Atlantis*. However, these works do not tell all and the subject is in need of much further deep investigation. This is a fascinating study that is open to all and sundry; it does not require specialist equipment and skills other than the ability to accurately survey buildings in plan and do some calculations to ascertain the unit measures that were utilised to erect the structure. Probably the best introduction is via commonalities in distances between sites which are found on the OS maps, some of which have been demonstrated on these pages, plus of course the two books mentioned earlier, *Measurements of the Gods* and *Deluge: From Genesis to Atlantis* which have received considerable praise from some of the few who understand these matters.

While further details of the setting out of churches would be interesting that would deviate too far from the main thrust of this narrative which is the history associated with Twmbarlwm and in reality would take up a lot of space. However it is felt that these sections dealing with change from the Bronze Age to the Normans and the relationship to Twmbarlwm reveal that without the hill top being where it is, the landscape, the villages, the churches and castles would have been in different locations. In other words, our odd shaped hill, which grew a protuberance at the behest of some Norman overlord, has dominated over ideas relating to the formation of the landscape in the region for some 4500 years. It gave the ability to plot the Pleiades movements as noted in Genesis and by the later Hesiod among others, the resultant alignments then gave information later utilised by the Romans when they were setting out Caerwent and finally the Normans both used and abused Twmbarlwm in their activities. Of course we have the mining and quarrying of later times but if Prince Charles can accuse a modern structure of looking like a carbuncle in London then he ought to take a look at what his forbears did to our hill here in South Gwent! The country developed a rash of pimples like this which was bad enough but to have one right on the top of the head is unsightly in the extreme!

However, while not appreciating Norman mounds they are of historical importance and wherever possible should be maintained for that reason. In any case when arriving from foreign parts [England to some Welsh purists!] once this side of the River Severn, travelling along the M4 and the hill comes into view, we understand that we are home!

Measurements of the Gods
http://www.completelynovel.com/books/77136
Deluge From Genesis to Atlantis
http://www.completelynovel.com/books/77135

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