

Letters to the Editor

Patronal sunrise alignments: the case remains

A letter from J Muirden

Ian Hinton has shown tenacity of purpose in measuring the orientations of almost a thousand English medieval churches (*Do Chancels Weep?* Vols 5-6, 42). As a result of this immense effort he finds no support for the 'patronal sunrise' theory, which supposes that churches were aligned on the sunrise on the feast of their patron saint. Instead, he comes to the conclusion that

'In general, it seems reasonable to conclude that churches were originally vaguely aligned eastwards, but for some reason a more accurate orientation became increasingly important over time, which was realised when the opportunity arose through rebuilding (p 50).'

However, my own careful measurements of almost 200 Devon churches suggest that their eastern alignment was not vague. In fact, the simplest way of explaining their range of axial directions is to suppose that many of them were aimed towards the sunrise position on a particular date – possibly their patronal festival.

Hinton did not calculate his churches' 'alignment sunrise' dates at all, merely determining the **orientation** of each building. The two are not necessarily commensurate, since any elevation of the horizon has a most important effect upon the circumstances of sunrise. A 1° elevation alters the theoretical date by some two days, and a 3° elevation changes it by about a week. It is therefore necessary to make careful measurements of the horizon and to calculate the sunrise date on a church-by-church basis. The histogram (Fig 1) represents the distribution of derived 'alignment sunrise' dates within my Devon sample, and the overall preference for some dates and not others is clear.

But are these dates significant? Once again, Hinton appears to have ignored a crucially important point – the errors of the Julian calendar, which was in use during the medieval era. For example, a church built to face the sunrise on St Giles' Day (1 September) will be facing it on a different date in the modern (Gregorian) calendar. The difference depends upon the date of construction, and is approximately as follows:

Aligned c	850 'St Giles' alignment on	5 Sep today
	950	6 Sep
	1100	7 Sep
	1250	8 Sep
	1350	9 Sep
	1500	10 Sep

Therefore, a judgment as to the **intended** Julian date has to be made on a church-by-church basis, which involves deciding when the foundations were laid down.

The 'slippage' of the Julian calendar is a promising way of explaining why some churches are crooked? which is Hinton's central concern. A church aligned on its patronal sunrise in, say, AD 950 would no longer have been facing the sunrise on the same date in 1350. Therefore, a rebuilding at the later date would have to be on a different axis, if a sunrise alignment was considered important.

Hinton claims to have found a tendency for crooked churches to be realigned more accurately east-wards, and, as quoted above, he suggests that this is the reason for the change of axis. This tendency, if confirmed, may simply reflect the preponderance of popular late summer festivals, whose 'Julian' correction would automatically be towards rather than away from east. There are, in any case, plenty of instances of churches having been realigned **away** from east.

The most important criticism of the 'patronal sunrise' theory is that relatively few of the derived dedications agree with the dedication record. But how reliable is the dedication record?

I will give two examples. The documented dedication of Crediton church (to Mary and Holy Cross) goes back to the 13th century; but Leland recorded a tradition that the first Saxon minster church on the site was dedicated to St Gregory¹. The sunrise alignments of this crooked church agree excellently with a Saxon dedication to Gregory the Great (12th March), suggesting that the Norman building may have been based on the previous foundations.

At Sidbury, a celebrated crooked church with a Saxon crypt, the alignments are consistent with a medieval sunrise on St Giles' Day (1st September). The pre-Reformation dedication is, however, lost, and a conscientious researcher would list it as 'unknown'. Yet in the 18th century the parish fair was being held in honour of St Giles²? a remarkable coincidence indeed. Once again, local recollection of the ancient feast may have preserved the dedication; if the traditions at Crediton and Sidbury had been forgotten, what credence would be given today to the apparently *ad hoc* festivals suggested by their sunrise alignment?

The initial histories of most parish churches have vanished in the mists of time; in Devon, fewer than a fifth have documented dedications earlier than 1300, and many disappeared at the Reformation. In most cases, therefore, hundreds of years of dedication history are unaccounted for. If the churches we see now were built on their Saxon predecessors' foundations (as implied by the above examples), then the lack of agreement between deduced 'alignment sunrise' dedications and the documented record could simply reflect our ignorance of the original dedications.

It is almost fifty years since the Revd Hugh Benson published his ground-breaking analysis of the alignment sunrise of every ecclesiastical site in Oxfordshire³. His claims for their patronal significance have received little attention, and as far as I know the present Devon survey is the only one that has followed his lead. The evidence I have collected so far is circumstantial, and there may be an alternative explanation for the sunrise clusters shown in Fig 1; but, bearing in mind its diagnostic potential, the 'patronal sunrise' theory deserves more discriminating fieldwork and analysis than it has generally received.

Notes

1. Orme, N, 1996, *English Church Dedications*, University of Exeter Press, 151
2. Orme, 1996, 200
3. Benson, H, 1956, 'Church orientations and patronal festivals', *Antiquaries Journal*, 36, 205-213

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Historic Church Construction

I wonder if any of your members may be able to assist in connection with my research. I am currently investigating the incorporation or encasement of timbers in church masonry above ground (intra-mural timbers). The latter was regular practice in the building of castles and buildings of a similar nature and it seems logical that this would also apply to church building. So far I have been unable to get positive proof. I have some useful details relating to the use of timbers within the main foundations but nothing more. I am also looking at the foundations to columns which take vaulting - I am trying to resolve whether there was a general reliance on the use of stylobates - the alternative would no doubt have been foundations similar to those on the outer walls. Any help or guidance you can give would be much appreciated.

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