

Woodman reassesses the form of the east end of the Confessor's church, suggesting that it had an ambulatory with chapels, similar to the arrangement at Rouen Cathedral; Pamela Tudor-Craig examines the iconography of the sculpture of Henry III's church, arguing that the angel imagery was inspired by the pseudo-Areopagite, which Henry had probably read; Paul Binski and Emily Guerry offer complementary perspectives on the use of space in the abbey church, specifically with reference to the muniment room and the presbytery sedilia; Tim Tatton-Brown maps out the late medieval building works at the abbey; and finally Jane Spooner argues that the Chapel of the Pew was built as a single space, not two, before being taken over by Richard II, who was simultaneously responsible for commissioning the white hart in the muniment room, which he intended the monks should see as they emerged from the sacristy. In a very different vein, Richard Mortimer, reflecting on the monks' intermittent attempts at chronicle writing, suggests that their literary endeavours were concerned principally to emphasise the abbey's privileges and not to record national history. In the complementary volume on the palace three medieval pieces stand out. These are: John Crook's imaginary tour of the palace, which revises previous accounts of its topography on points of detail; Virginia Jansen's account of Henry III's works on the main apartments; and Julian Munby's analysis of Hugh Herland's hammer-beam roof over the great hall. Among the pieces on the post-medieval period in the same volume the following are especially noteworthy: Jeremy Ashbee's discussion of the Jewel Tower, which carefully balances conflicting views on its purpose and history; Mark Collins' account of the changing topography of the palace between the sixteenth century and the nineteenth; and Steven Brindle's lively account of the building of the new palace after 1834. Among the post-medieval pieces in the abbey volume, mention should especially be made of Steven Brindle's surprisingly favourable account of George Gilbert Scott's work as Surveyor of the abbey; Richard Foster's reconstruction of the tangle of streets and buildings on the north side of the abbey; and Eddie Smith's description of the seventeenth- and early eighteenth-century buildings of Westminster School.

If such are the principal contents of the two volumes, how may we assess their worth as a whole? Inevitably, as in every set of conference proceedings, there is a certain unevenness in coverage with some topics thoroughly discussed, and others hardly at all. In both volumes, however, the editors have made a commendable attempt to do justice to the full chronological

range and to include most aspects of the archaeology and architecture of the two sites. Of the two volumes, it is perhaps the one on the palace that comes across as the more satisfying, offering as it does a comprehensive coverage of all the main developments on the site. A weakness sometimes associated with volumes of this sort, which focus on a particular place or area, is that they become tunnel-visioned, concentrating on the place in question and ignoring the comparative dimension. This is a danger which is for the most part successfully avoided here, with constant reference made by contributors to works at other royal sites, such as Windsor, and to points of similarity or contrast with royal ceremonial and administrative centres elsewhere in Europe. As we have seen, there is actually a paper devoted to the great royal hall at Caen, a building very similar to that at Westminster. At the end, the strongest impression left by the volumes is just how much there is still to be learnt about Westminster. Although the great complex of buildings may be among the most familiar and best studied in Britain, it never loses its capacity to yield new secrets. In that case, where might investigations into the palace and abbey go from here? One period in Westminster's history that still appears highly elusive is Henry II's reign. Works on the palace are documented in the 1160s, and the first chapel on the site is recorded in 1184. Henry himself appears fleetingly in these pages, and the subterranean remains of his buildings are periodically referred to. Yet his contribution to Westminster's development remains shrouded in mystery. Perhaps there might be more to report if the BAA were to return to Westminster after another hundred years.

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*Conservation and Discovery: Peterborough Cathedral nave ceiling and related structures.* Edited by JACKIE HALL and SUSAN WRIGHT. 310mm. Pp xvi + 193, 202 ills (chiefly col). Museum of London Archaeology, London, 2015. ISBN 9781907586392. £25 (hbk).

Between 1997 and 2003, the nave ceiling at Peterborough Cathedral underwent a systematic programme of inspection, cleaning and conservation, coupled with chemical analyses of the

surviving paint layers and extensive sampling of both the roof timbers and ceiling boards. The results were then brought together under the industrious eye of the current cathedral archaeologist, Jackie Hall, to form the volume under review. A number of findings were new and have implications for future work, particularly on the medieval timber trade. Two immediately stand out. The switch from English-grown ceiling boards of *c* 1210 in the transepts to boards of *c* 1240 imported from north Germany in the nave is one example, adding to what is becoming apparent elsewhere in the 1230s – the need for the long-distance sourcing of timber in England as local mature forest-grown oak became scarce from the second quarter of the thirteenth century. Another is the revelation that the overwhelming majority of ceiling boards were between 2.0–2.2m in length. As the maximum length of a diagonal in the large ceiling lozenges is just under 4.0m, presumably boards of riven oak substantially above 2.2m were unobtainable. A similar phenomenon can be noted in the late thirteenth-century wooden presbytery vault at St Albans, where short boards were joined in the long north–south severies. This suggests there was an effective maximum length for oak ceiling or web boards – a constraint more likely to have had an impact on the design of thirteenth-century wooden vaults than of ceilings, but one that may have been a consideration when deciding on the layout of painted schemes.

The book is divided into six chapters, dealing, respectively, with the background to the conservation project, the medieval nave and nave roof, transept ceilings, nave ceiling, post-medieval repairs and a summary of the actual conservation and recording work. The introduction reviews the findings of the various specialists and integrates these into the medieval history of the building as revealed in the Peterborough Chronicle. This is then followed by Don Mackreth's account of the building of the nave and Hugh Harrison's survey of the nave roof, who jointly establish an absolute chronology for the later stages of work. Applying a 'Bayesian' methodology to the various sap-wood dates revealed by tree-ring dating, Ian Tyers and Jackie Hall effectively demonstrate that the eastern eight bays of the nave were roofed in the 1180s, while the roofs over the western two bays of the nave were erected at about the same time as the north portico in the late 1220s. An invaluable bonus to the analysis of the nave is the publication of Mackreth's phased elevations.

Meanwhile, the transept ceilings were already underway. Although less of the original ceiling survives here, there was enough to be able to establish a likely felling date of between 1203 and 1215. Harrison argues that the original plan might have been for a coffered ceiling on the basis of a series of unused longitudinal pockets in the north transept end wall, but that the beams were insufficiently substantial to allow it, and instead a flatter ceiling was created. If so, it involved a serious change of aesthetic, and a rectilinear grid integrated with the transept bay system gave way to an autonomous arrangement of overlapping diagonals. The pattern of lozenges adopted in the transepts is the effective prototype for the nave ceiling and, though it is impossible to reconstruct the painted design precisely, the arrangement of lined concentric lozenges in which the small central lozenge is used as a field for more intricate painting is the *gestalt* that then informs the nave.

Chapter Four deals with the nave ceiling – its materials, construction, chronology and imagery. While the roof may have been complete into the western nave extension by the late 1220s, the ceiling boards are unlikely to have been available before *c* 1238 and a date around 1240 during the abbacy of Walter of Bury St Edmunds (1233–45) is adopted. The one caveat is whether there was a single intensive felling and construction period, in which case the nave will have been 'ceiled' after 1238, or whether supply and construction were spread over the best part of a decade, in which case work could have begun in the eastern nave bays before 1238. Despite repainting in the 1740s and 1830s, the thirteenth-century design has survived, and significant elements of the original scheme can be seen in low relief. Enough paint is also there to establish that an oil-based medium was used, as were some relatively expensive high-quality pigments, such as azurite and vermilion. As for the imagery, Paul Binski summarises his earlier Harlaxton paper and argues that the sequence of kings, archbishops and bishops in the western part of the ceiling celebrates Peterborough's pre-Conquest founders and benefactors, while St Peter, the Agnus Dei and Janus relate to the monastic choir, qualified by drolleries and musicians appropriate to a position around the edge of the choir enclosure. The celebrated images of the Liberal Arts, in no obvious order and positioned peripherally in the outer lozenges, Binski compares with pavements.

Finally, Chapters Five and Six bring the story up to date, reviewing the physical and documentary evidence for post-medieval repairs

and recording the interventions made between 1997 and 2003. In all this there is just one issue that sits uneasily in the text. While he was sacrist, Robert of Lindsey whitewashed the 'volsuras' in the retrochoir (*fecit dealbare volsuras in retro choro*). For Don Mackreth this probably referred to the intended nave vault, and might even be taken as evidence it was built. 'Volsura' can be translated as 'vault', though it is cognate with the modern French 'voussure', or voussoir. It could refer to ribs or arches. In so far as there is one vault at Peterborough which was unquestionably built – a rib vault over the principal apse, to the east of the presbytery and high altar – was this not the vault, or the vault ribs and enclosing arch, that were whitewashed by Robert of Lindsey? 'Retrochoir' is not a medieval term, but 'retro' is generally understood as signifying behind, that is to the east, of the choir.

It is excellent to have this material gathered into a single volume, and vastly more helpful than finding it effectively buried in a series of separate, specialist reports. MOLA and the editors are to be commended for their patience and good sense in bringing it together and producing such a high-quality volume.

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*Tower Studies, 1 & 2. A House that Thieves might Knock at. Proceedings of the 2010 Stirling and 2011 Dundee Conferences on 'The Tower as Lordly Residence' and 'The Tower and the Household'*. Edited by RICHARD ORAM. 255mm. Pp xvi + 304, 143 ills (94 col), 15 tables. Shaun Tyas, Donington, 2015. ISBN 9781907730405. £45 (hbk).

Part monograph, part themed journal, this book of essays represents the published proceedings of the first two conferences held under the auspices of Turrís, a newly formed international network of those who share an interest in the medieval and later tower in all its forms and contexts. The first conference, organised by Richard Oram at Stirling in 2010, took as its theme the tower as lordly residence, and the second, hosted by the late Charles McKean at Dundee in 2011, was on the tower and the household. Of the papers presented at the conferences, sixteen are published here, nine from the first event, seven

from the second, and almost two-thirds of them relate to Scotland and Ireland, with five essays apiece. Of the other six, two relate to the Netherlands, two to England (one against a Norman and Angevin background) and one each to Wales and Poland.

Transcending modern geographical boundaries, however, one of the principal values of an international compilation of this kind is the refreshing juxtaposition of different bodies of historical and material evidence and of different approaches to their study. Across many countries, the towers themselves highlight many common and now-familiar themes, such as their conveyance of messages of ambition, authority, status and belief, or an apparent lack of effective means of defence. They also exhibit a number of contrasts, not least in their physical contexts, which range from settings that are relatively isolated to those that are intensely nucleated. Alongside more traditional approaches to understanding their built form, fabric and history, relatively new techniques are demonstrated here to interesting effect. In relation to Irish towers, for example, Gillian Eadie uses spatial analysis to address assumptions about social use and segregation, while Rory Sherlock applies to their origins and dating the results of radiocarbon dating of hazel rods used in wickerwork centring.

For these reasons it matters less than it otherwise would that about half of the contributions fit within their conference themes only very loosely, some scarcely at all. The reader is thus best advised to regard much of this collection as a miscellany, and to remain mindful that it is a prelude to an entire series. Other themes hinted at or explicitly referred to are already in gestation as *Tower Studies* 3, 4 and 5, which deal, respectively, with urban towers (from Cracow in 2012), the 'tower house' (Amersfoort, 2013) and the tower as status symbol (Newcastle, 2014). Given the strong likelihood that they will complement this first volume and each other, it would be premature and pointless to draw attention to some obvious gaps and imbalances in the coverage provided by *Tower Studies 1 & 2*; and, while simply noting differences over what, for example, constitutes a 'fortified house' in Ireland and Scotland, further comment on terminology will best be deferred until after the appearance of *Tower Studies 4*, which looks as though it will be bravely concerning itself with definitions.

However, as the first volume of a series, it is entirely appropriate to add a few remarks about standards of presentation and about tone. The volume is amply illustrated, much of it in colour,