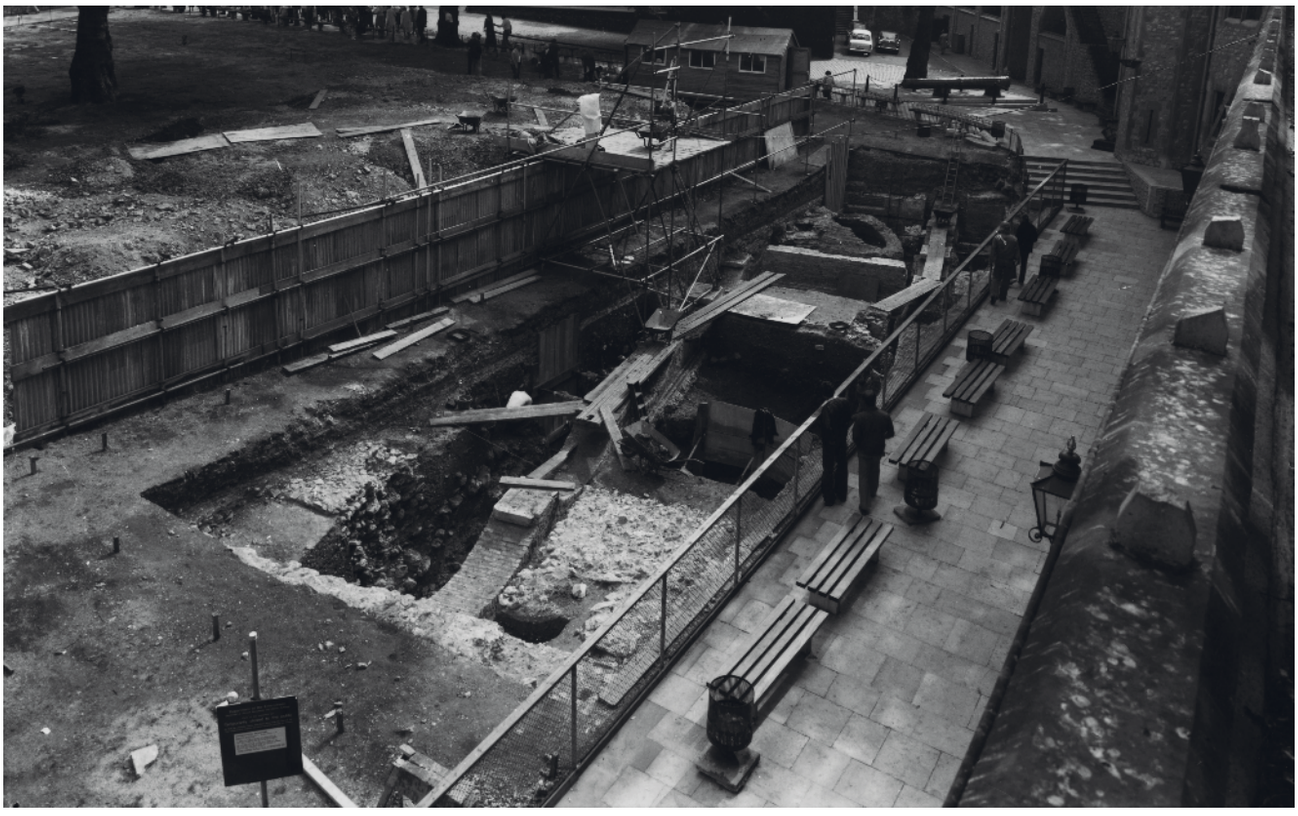

Fig. 1: general view of the main excavation trench looking east from the wall-walk of the south curtain. The massive rubble foundation in the foreground, aligned at a right angle to the trench, is thought to represent the western limits of the 12th-century great hall. The foundation on the same alignment and partly under the section nearest to the camera marks the eastern limit of the Ordnance storehouse (Fig. 4) that replaced Henry III's great hall in 1789.

The Great Hall in the Inmost Ward, Tower of London

Geoffrey Parnell

On revisiting my article on the New Armouries,[1] I realised that I had made some rather misleading comments about the conversion of the Tower's famous medieval Great Hall into an Ordnance storehouse in 1641. Although I had alluded to these changes in a more accurate manner at a *Chateau Gaillard* conference in 1996,[2] I thought I should provide here a more detailed account of one of the Tower's most historic and important buildings that sadly became extinct at the end of the 18th century.

The medieval Great Hall

During the Norman period the White Tower seems not to have been occupied as a royal residence, and during the reign of Henry II the 'King's apartments in the bailey' are known to have been repaired in 1171–2, thus demonstrating that the royal lodgings were already established in the ward on the south side of the great tower. This complex was greatly restored and enhanced by Henry III in the early 1230s with the Great Hall being rebuilt.[3] The new building was evidently complete in 1234 when its exterior walls were whitewashed together with those of the 'Great Chamber', which was probably the massive rectangular block that can be seen adjoining the eastern end of the hall on 17th- and 18th-century surveys.

Evidence for the rebuilding of the earlier hall was found during excavations in 1976 on the site of the building where a large early 12th-century foundation (Fig. 1) was found inside the western limits of Henry III's 13th-century Great Hall – presumably Henry's builders had demolished it to make way for the enlarged hall.[4]

The Tudor and early Stuart Great Hall

After three hundred years of employment, Henry III's Great Hall was refurbished in time for the coronation of Anne Boleyn in May 1533;[5] thereafter the building seems to have fallen into rapid decay. A report on the state of the Tower by the Lieutenant, Sir Francis Jobson (1564–70) found the hall 'ready to fall' with most of the lead off the roof.[6] In the 1597 Haiward and Gascoyne survey the building is shown as roofless and marked 'decay'd'(Fig. 2), while in the summer of 1600 Baron Waldstein from Moravia described 'an ancient dining-hall, almost falling to pieces with age'.[7] These observations

Fig. 2: detail of Haiward and Gascoyne's survey of 1597

are confirmed by items listed in official accounts of repairs carried out in 1603/4, in advance of James I's final royal occupation of the fortress for three nights beginning 12 March, 1604. The most interesting account concerning the Great Hall is the 'Frameinge and settinge upp of a sidewall and a roof over the olde hall and raftringe it with great firpoles to beare a Canvas coveringe being lxx foote in legthe and xxv foote in bredthe boordinge upp one side-wall'.[8] The size of the canvas suggests that it was intended to cover one side of the hall's pitched roof which, from numerous 16th- to 18th-century illustrations, can be seen rising above the south curtain wall on an east-west alignment.[9]

The Great Hall becomes an Ordnance storehouse

Little or nothing is known about the subsequent history of the medieval Great Hall until the Office of Ordnance petitioned the Privy Council on 10 July 1639. The senior officers of the Office recorded 'the great want of a convenient storehouse' and that they had 'found out a vacant place in the Tower called the "old hall" which we conceived might be made a convenient and useful storehouse for the reception of ordnance, carriage, match and other provisions whereof as by particular estimate made, well by the carpenter of the Office of Ordnance [Mathew Banks] as by the direction of the Surveyor of his Majesty's Works [Henry Wicks] would not exceed £300 - £400 at the most'. Significantly they added that 'his Majesty personally viewed [*sic.* the building] and approved the fitting up thereof, But there being no written order for erecting the same'.[10]

As a consequence of the Ordnance request, a debenture was issued to the master carpenter, Mathew Banks, on 10 July 1641 for 'a new storehouse in Coldharbour' with an estimated cost of £783.8s.4d.[11] The remainder of the £828.8s.0d allocated for buildings works went to the master smith, Thomas Hodgskin, whose debenture had been issued nine days earlier on the 1 July 1641.[12]

The 'perticulars' of the carpenters' agreement are very detailed, but the basic components are three substantial floors and a substantial roof. There is no mention of works to the external walls of the building, and it must be assumed that the timber 'sidewall' of 1604 was still extant and like the rest was utilised in the new storehouse. It is interesting to note that the canvas installed over the roof, when the sidewall was constructed, is recorded as being 70ft long and 25ft wide. Mathew Banks' account refers to nine large timber posts and substantial 'sommers' (principal beams) 'above lx ffoot in length' supporting the first floor. This measurement, together with detailed 17th- and 18th-century surveys, suggests that the internal plan of the main body of the hall measured approximately 60ft x 70ft. The 'perticulars' of Banks' debenture can be summarised as follows:

The ground floor was laid with 'substanciall Joysts of Oake, and planks upon wth two Inch Oaken Planks … all the sapp being lifted out of them'. The total boarded surface amounted to thirty-nine squares (one square equals 10ft x 10ft) and combined cost of labour and materials for the ground floor was £157.

The boarding of the 'middle ffloare' in oak amounted to thirty-nine squares and the 'Girders and Joysts' that

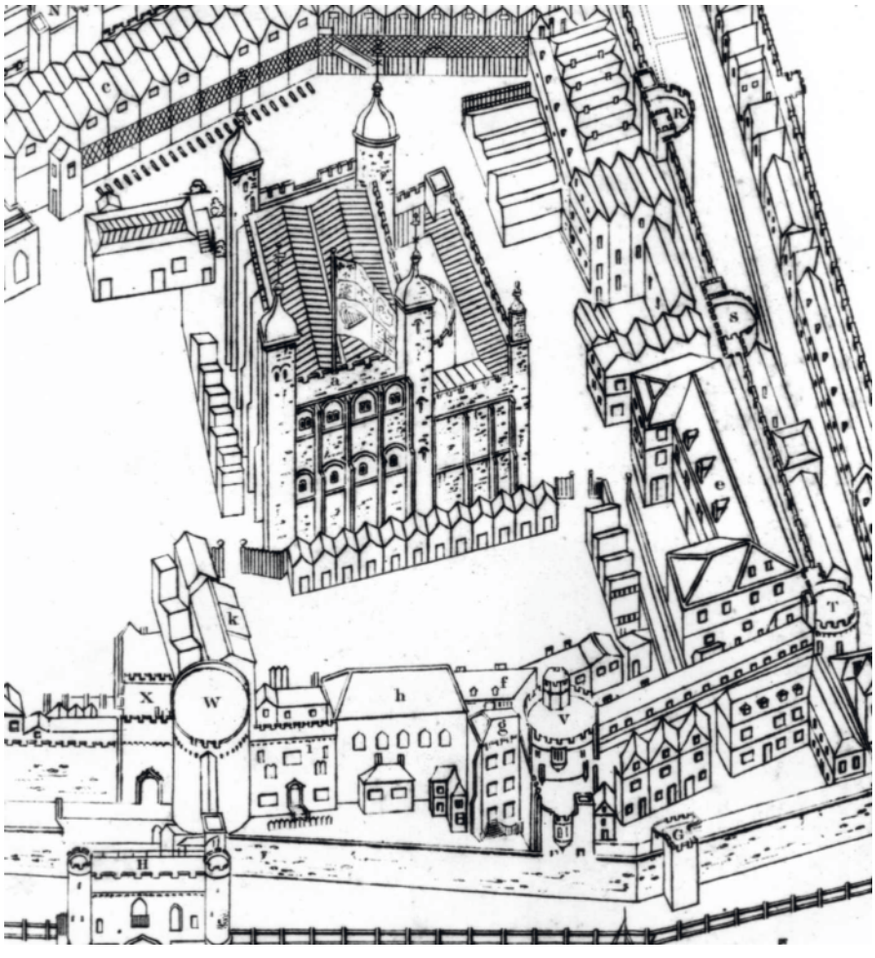

Fig. 3: Holcroft Blood's birds-eye view of 1688

supported the boards were 'substancially done with oaken Tymber'. Beneath this framework were 'sommers of very large ffirr Tymber, and above lx ffoot in length each peece'. The cost of labour and materials for the first floor was £146.5s.0d.

The first floor was supported by a number of columns; their description is worth quoting in full:

'ffor the ix supporters under the same ffloare of substanciall oaken Tymber, wth their Basses and foundacons of stone vi ffoot deepe and iiii ffoot square in the ground the most part of them sett upon piles and planks by reason of many Vaults being formerly buried there, finding all materialls and workmanship - £xxviii. xs.'

The fascinating comment about the buried vaults strongly indicates that Henry III's Great Hall was furnished with an undercroft that by 1641 had been infilled.

The upper floor 'beinge done wth substanciall Tymber, and boarded upon wth deale Boards' had a surface area of thirty-seven squares. Given the quantity, there can be little doubt that the entire roof was boarded, but this was probably in preparation for the laying of lead, rather than a finished surface. The cost of labour and materials for this floor was £74.

The roof, whose surface area covered fifty-seven squares, was 'done wth substanciall Tymber great scantling because of the extraordinary depth of the Roofe'. The eaves of the new roof protruded two feet, presumably intended to maximise the storage potential. The cost of labour and materials came to £126.

The new roof was supported by four 'principall Trusses and two end Trusses … made of substanciall Tymber wth strong Barrs and dogges of Iron'. The cost of Labour and materials came to £170.

The new storehouse was accessed by 'two payres of dores wth a wicket in one of them'. The door cases were made of oak with oak lintels and windows overhead. The cost was £20. A further expense was incurred by the smith who provided five 'bolts for the great dore' and 'one Double extraordinary Stoke Locke' for the combined price of £1.15.0d.[13]

There were three other windows made in oak, 'one Transome widow, and two clear stories'. The cost was £12.

There were two pairs of stairs 4ft wide 'going rising xiii ffoot high'. The cost was £12.

Finally there was a 'very substanciall Crane to take upp provions, wth a great wheele for Two Men to goe a breast in'. Fitted with 'Brasse shivers' the cost of the device was £33.

The post-medieval Great Hall

The surviving Ordnance Debenture Books (WO 49) make very little reference to the Coldharbour storehouse during the rest of Charles I's reign, though its crane was given a major overhaul in 1649.[14] During the early years of the Restoration the Ordnance Bill Book series (WO 51), which rehearses the terms of the debenture and records payment, becomes more and more dominant in recording the financial operations of the Office. There is a single Bill Book with entries dating from the early 1630s,[15] which strongly suggests that the origins of the series are much earlier than what has survived the ravages of time. One of the earliest references in the post Restoration Bill Books to the old hall is a payment to the Office carpenter, Thomas Casse, for thirty-six days work, beginning on the 28 February 1665, for 'makeinge severall places in ye old Storehouse to sett up Ladles & Spunges'.[16]

The old medieval great hall was subjected to further repairs and alterations in September and October 1672, with the breaking out of window openings, the removal of a buttress against its west wall and 'digginge and clearinge ye foundacon'.[17]

On 27 May 1685 a warrant was issued to the master carpenter, Thomas Moore, for repairs to the ground floor 'of the Old Storehouse in Coldharbour'. These included the installation of twelve 'Long Posts 12 inches sq' and '19 Square 48ft of Ground ffloare' and the repairing of the rest of the floor in several places'.[18] Further warrants were issued to the bricklayers John Downes and Robert Fitch on 8th and 9th that saw lath and plaster applied to the underside of one of the floors, while walls were repaired and rendered.[19]

In order to improve the lighting of the 'Great Storehouse in Coldharbour' a number of windows were introduced in the second half of 1685 beginning on the 5 August when the Ordnance Board ordered carpenter Moore 'to Cutt out a place in ye Stonewall of ye Backside of ye Old Storehouse in Cold Harbour and to place in ye same a large Transome Window fframed wth Iron Barrs of Inch square … shutters of whole Deale to ye inside'.[20] Seventeen days later Moore was instructed to provide another 'Larg[e] 4 ligh[t] Window'[21] while on 22 October Downes and Fitch were issued with a warrant 'for breaking a place in ye Old Wall of ye Storehouse in Cold harbour … setting in a 3 Light Window to give more light to ye s[ai]d Storehouse where ye Mortarpeeces are placed'.[22] The medieval hall with its row of gothic window in the south

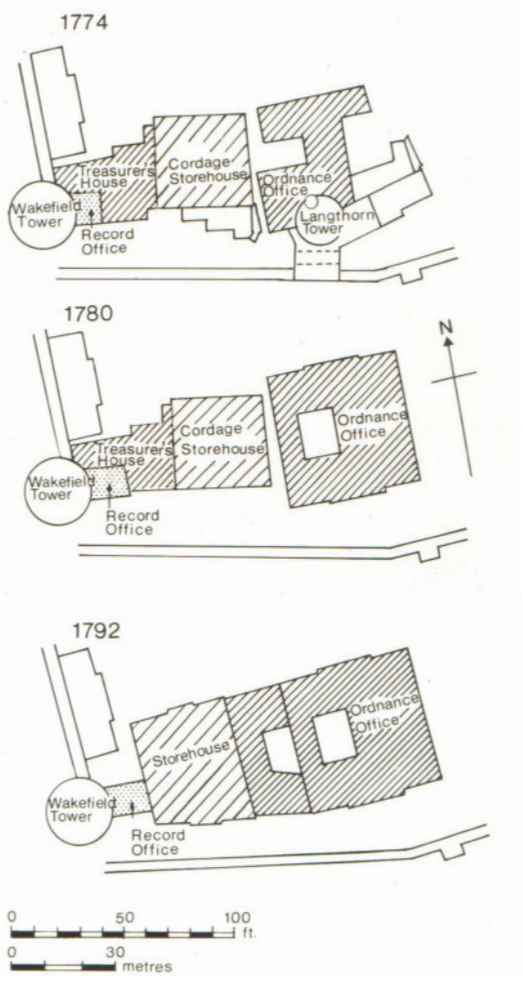

Fig. 4: plans of Ordnance offices

elevation can clearly be seen on Holcroft Blood's 1688 birds-eye view of the Tower where it is indexed 'h' and described as the 'Mortar Piece Store-house' (Fig. 3).

During the 18th century, the old medieval hall is increasingly described as the 'Cordage Storehouse', and it survived the great fire of 2 January 1774 that ravaged a large area immediately to the east (Fig. 4). It failed to survive the next conflagration of 23 July 1788 when the adjoining new Ordnance administrative office was gutted by fire. Having been demolished, the site of Henry III's Great Hall was shared between an enlarged Ordnance office and a new storehouse (Fig. 5), whose west wall seemed to contain a good deal of re-used medieval masonry in its foundations when I uncovered part of it during excavations in 1976.

Dr. Geoffrey Parnell is a former Keeper of Tower History at the Royal Armouries, Tower of London, and a former English Heritage Inspector of Ancient Monuments. He has undertaken numerous excavations at the Tower between 1973 and 1984 and has written widely on the archaeology of the site, and its buildings and institutions. Dr. Parnell is a Fellow of the Society of Antiquaries.

Fig. 5: this fascinating photograph of the buildings arranged along the south side of the Inmost Ward was taken by the royal photographers, Bedford Lemere, in 1882, shortly before most of the complex was demolished. From left to right this comprised Henry III's Wakefield Tower with part of a contemporary adjoining chamber block that later formed part of the Record Office of the Tower. The three-storied building to the right is the Ordnance Storehouse built in 1789–92 with a large central entrance with loading bays above. In 1834 the entrance was modified to accommodate a tramway that ferried munitions from the Wharf to the basement of the White Tower. The opening that can be seen in the outer curtain, together with the Middle Drawbridge crossing the moat, was formed at the same time. The lower part of the gigantic building beyond is the Ordnance administrative office built in 1776-80 with the adjoining 1789–92 extension on the left. The upper floor of the building was added in 1854 while the Crimean War was raging and at a time when the office was converted into a storehouse.

1. G. Parnell 'The New Armouries, Tower of London' *London Archaeol* **13**, no. 2 (2011) 49–54.

2. G. Parnell 'Ordnance Storehouses at the Tower of London, 1450-1700' *Chateau Gaillard* **18** (1998) 171–9.

3. G. Parnell The Roman and Medieval Defences and the Later Development of the Inmost Ward, Tower of London: Excavations 1955-1977' *Trans London Middlesex Archaeol Soc* **36** (1985) 24–5.

4. H.M. Colvin *The History of the King's Works*, Vol. II, (1963) 713–4.

5. G. Parnell 'The Tower of London in the reign of Henry VIII' *Henry VIII: Arms and the Man* (2009) 74.

6. British Museum, Add. Ms. 14044, f. 41.

7. G.W. Groos (1981) *The Diary of Baron Waldstein* 71.

8. See my section 'The End of Royal Residence' in E. Impey & G. Parnell *The Tower of London: The Official Illustrated History* (2000) 53.

9. The earliest depiction of the hall and its roof is found in the late-15th-century book of poems by Charles, Duke of Orleans; G. Parnell 'The reconstruction of the Inmost Ward during the reign of Charles II' *Trans London Middlesex Archaeol Soc* **31** (1980) plate 3.

10. SP 16/425.

11. WO49/72, f. 71.

12. *Ibid.,* f. 70. Among the numerous items the smith was required to supply was 620 'spikes to hange upp Saddles'.

13. WO 49/72, f. 70.

14. WO 49/83, f. 197.

15. WO 51/1.

16. WO 51/5, f. 98. Ladles are instruments used to load powder into the barrel of a gun; sponges are implements used to clean the bore of a gun after it has been fired. For those of us who lament the loss of the old cannon bollards that once decorated Tower Hill, it seems there is nothing new in the practice for the entry that follows the setting up of ladle and sponge storage facilities records a payment to the carpenter 'for Digginge up ye old Guns at Tower wharfe & setting posts in their Roome'.

17. WO 51/15, f. 131.

18. WO 51/30, f. 138.

19. WO 51/31, f. 109.

20. WO 47/15, f. 121. The bill for making and installing 'One forelight Window' is found in WO 51/30, f. 138.

21. WO 31/102, f. 102.

22. WO 47/16, f. 29.