

really began with Edward IV's accession in 1461 (Griffiths 2013). The work is in large, ashlar blocks of Old Red Sandstone, with a myriad of different masons' marks (Emery 1975), suggesting a large, skilled workforce working at great speed. Brick is used to form vaults under the grand staircase and in the fireplaces. Raglan Castle in the 1460s seems to be the site where brick was first used as a building material in Wales.

Following Herbert's redesign of the castle, Fountain Court became the innermost courtyard of the castle (fig. 2). This increased its privacy, which implies that only the

Court and access to a private latrine. This reconstruction of the court in the 1460s gives an idea of the richness of these rooms (fig.3). The grand staircase lies at the centre of two main ranges of apartments (figs. 2 and 3). It was built where a tower sits in an angle of the curtain wall. This presented a challenge to the master mason who designed the staircase, as he had to resolve the multiple planes formed by the junction of the curtain wall and the two rectangular ranges of apartments, as well as maintaining an even flight of stairs out of each doorway, and down to the main entrance. This challenge was to

staircase, probably copying one added to the apartments in the Upper Ward of Windsor Castle in the 1440s. Guests would leave the doors of their first-floor apartments on either side of the top of the stairs to descend in pairs, being followed by guests leaving the ground-floor apartments. The moulded stone handrail is set quite high, at 1.2 m above the treads. This has the effect of raising the users' hands to about the level of their chests, increasing the sense of a stately progress. They would walk through the ornate main entrance doorway with an inscription painted onto the carved ribbon banner over the arch (fig. 3), before walking across Fountain Court and entering into the great hall for the meals, through an archway of equal magnificence. When they had finished eating, they would return in procession back to their well-appointed rooms. The formality of dining at Raglan Castle continued well into the seventeenth century. A set of household regulations survives from that period. Everyone's place at table was very carefully identified, and they even raised the drawbridge to ensure that the main meal of the day could be eaten in safety.



Fig.2

The interior of Fountain Court with the grand staircase at its centre.

most distinguished guests would have been housed here. Amongst these was the young Henry Tudor (the future Henry VII), whom Herbert had taken into custody after his capture of Pembroke Castle in 1461. Henry presented a potential rival for Edward IV's throne, so he was held at Raglan for a number of years, with Herbert hoping that he might be persuaded to marry his daughter.

The court gets its name from 'a pleasant marble fountain in the midst thereof, called the White Horse, continually running with clear water', whose square masonry base survives. Within the polygonal curtain wall on the west side of the court, Sir William Herbert built nine high-quality apartments, at ground and first floors. Each had a fireplace, ornate windows overlooking Fountain

present itself to later restorers of the staircase, and the geometry of the original layout will be explored in more detail below.

What was created was a very early example of a processional

Removal and Restoration of the Grand Staircase

One of the last great sieges of the second English Civil War was carried out at Raglan Castle in the summer of 1646. Parliamentary forces bombarded the castle causing widespread damage, until



Fig.3

A reconstruction of the interior of Fountain Court in the 1460s

the earl of Worcester surrendered on 19 August. The castle was forfeited to Parliament and the great tower was deliberately slighted to render it unusable in any future Royalist rebellion. Upon the Restoration of Charles II in 1660, Henry Somerset, the earl of Worcester, (created duke of Beaufort in 1682), decided to abandon Raglan Castle as a home and used Troy House and Castle House, Monmouth as the family residences in the county, whilst Badminton House in Gloucestershire was being built. In 1676, Edward Clytha, who remembered it as a boy in the 1640s, wrote a remarkable manuscript description of Raglan Castle (Gloucestershire Record Office: Badminton Papers 404.2.1-4). It includes the only description of Fountain Court before the siege.

So why has the grand staircase come to be called the Hokey-Cokey Staircase? This is because over the last 300 years, the staircase has been taken out and been put back in on three occasions. In the early eighteenth century, the second duke of Beaufort employed an estate surveyor, a man called Hopkins, who earned the nickname of the 'Grand Dilapidator'. He was responsible for the removal of chimney-pieces, doors, windows and a total of 23 staircases from the castle for resale elsewhere (Kenyon 2003, 23). This must have led to the loss of the great doors and hinges from the entrance to the grand staircase, and most of the ashlar from the treads and their stone handrails. The fifth duke of Beaufort (d. 1803) put a stop to these depredations, and it was his son who had the staircase rebuilt, by his agent in south Wales, Arthur Wyatt, for use in his 'Grand Entertainment' in the 1820s (fig. 4).

This new staircase was a straight flight, ignoring the original pattern of the treads, and the perpendicular flights to the apartment doorways, rising to a small doorway into the tower, from the top of which you got commanding views over the castle and its grounds. It was made by applying thin ashlar slabs over brick treads, set in a distinctive black mortar, built over the robbed



Fig.4

The 'Wyatt' staircase in about 1860

out remains of the medieval stairs. This perfectly serviceable staircase remained in use until the Ministry of Works took over responsibility for the site from the Duke of Beaufort in 1938. Photos show it still in place in the early 1950s, when it was removed on the grounds, no doubt, that it was 'an inappropriate restoration'. No records have been found in Cadw's archive recording who made this decision and why. It seemed rather arbitrary, as elsewhere a large part of the breach at the base of the great tower was restored to ensure its structural stability. However, the removal of the 'Wyatt' staircase left behind only the damaged remains of the brick treads over the rotten stumps of the medieval steps (fig. 5).

Visitors were now denied the views from the top of the tower. The solution that was put forward in the 1980s was to build a wooden, gantry staircase, similar to those used to enter an ocean liner, standing on posts resting on the remains below. This meant that there was no impact on the historic fabric, but the result poked out rather incongruously from the main entrance. This avoided any criticism that the staircase was an inappropriate restoration,

but the posts began to rot, making it unstable. It was soon taken away and the grand staircase was blocked off again.

Cadw's restoration of the grand staircase

Cadw inherited the responsibility for conserving and presenting Raglan Castle for public enjoyment in 1984. It first began to consider a permanent solution to the staircase problem in 2001. Reconstructing the original form of the medieval staircase proved a real challenge. It is contained



Fig.5

A view up the staircase after the 'Wyatt' work had been removed

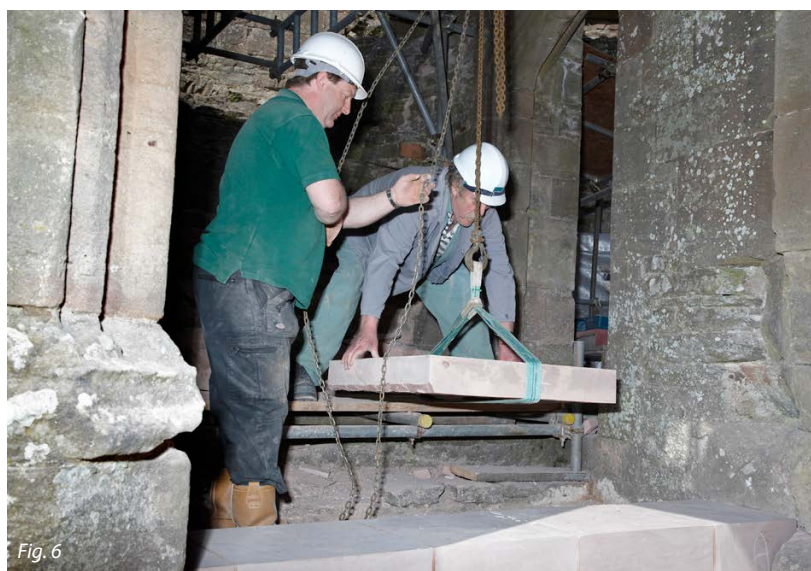


Fig. 6

Two of Cadw's masons laying one of the lower treads of the new staircase

within walls on ten different planes. It involved two main flights on slightly different alignments and four subsidiary flights. There were the partial remains of two main periods of construction, one from the 1460s and one from the 1820s. It was Richard Avent, chief inspector of ancient monuments and historic buildings, working with Tim Morgan, archaeological draughtsman, who made the first attempt to reconstruct the form of the original staircase. This involved looking at the surviving evidence in detail, by drawing plans, and more importantly the elevations, along the two main walls. This established the pitch and size of the treads of the main flight of steps. It also showed how the subsidiary flights could be joined into the main flight and yet retain an even pattern of treads. However two main issues were unresolved. The first was whether the main entrance had contained its pair of doors originally, or whether these were an alteration. To accommodate the swinging of the doors there had to be a half-landing at the second tread, or massive cut-outs into the treads of a continuous flight of steps. Also there was evidence of notches cut into treads 7 and 9, implying that the staircase may have been remodelled, perhaps to accommodate the introduction of the doors. Avent and Morgan did not feel completely confident in accurately restoring part of the original staircase, without

compromising some of the evidence for its initial construction and its potential re-modelling.

The present author took up this challenge in 2009, working with Bevis Sale, archaeological draughtsman. A small excavation was undertaken immediately within Fountain Court to establish what evidence remained of the lowest step. This and more detailed drawing of the lowest part of the staircase allowed for the paper reconstruction of the first four treads, including for the swing of the double doorways. Working with Cadw's masons, Alan Cornish and Rob Fear, these four treads were first mocked up in timber, to allow for the stone to be measured and ordered. In the laying of each tread (fig. 6), small details of the original layout began to be revealed. Given that the two main side walls were not parallel, then each tread joined the side walls slightly differently. It became clear that the lower part of the staircase was laid out on an axis perpendicular to the centre of the main entrance arch, and the side staircases were on axes perpendicular to the centre of their doorways.

The restoration of the lower flight had been the result of considering the evidence on the site, which defined the sizes of the treads and risers. All staircases, especially those where you are walking with your head held high in procession, need to have an even pattern otherwise you will stumble. However by projecting

the centreline of the lower flight, which was perpendicular to the main entrance, the staircase would have become significantly asymmetrical.

To erect these upper treads, a scaffolding gantry had to be built to lift and move the stones into place. The access onto this gantry allowed the plan of the whole of the grand staircase to be viewed from above for the first time. In drawing a plan of the staircase, with the help of this vantage point, Bevis Sale and the author at last realised how it had been laid out in the first place. By drawing axes perpendicular to the centre points of all six doorways onto the staircase, the framework of the staircase emerged. Setting out treads rising 8 in (200 mm) high and 16 in (400 mm) wide gave the pattern to the staircase, with the interception of the different flights being accommodated by turning the steps at the points where different flights intercepted. To make this work, the line of the main flight would have to be rotated at the point of the intersection between the axis perpendicular to the main entrance, and the axis perpendicular to the tower doorway. This occurred at the point where there is evidence for an inner arch over the upper flight of stairs, at the top of tread 6. Here the line of the staircase had to be rotated by 5 degrees. At that point only the centre of the tread is exactly the pattern of the rest of the main flight, with some distortion to either side.

By carefully considering and retaining all the surviving evidence of the medieval staircase, it was felt that the first ten treads could be reinstated to their full width, to the point that the masonry handrails had been robbed out. To try to raise the full staircase any higher would have required a more radical restoration than was considered acceptable. The decision was made to narrow the remainder of the staircase to provide a straight flight up to the tower doorway (fig. 7), and then upgrade the original staircase to allow for safe access to the top of the ruinous tower, which looks across the garden terraces, great lake and deer



The Grand Staircase as restored in 2011

park added to the north side of the castle in the 16th century.

Conclusion

The quality of the workmanship and of the stone used has made the final result look so simple and permanent. This hides the very considerable effort made over a number of years to get the final design as correct a partial restoration of the original grand staircase as possible. The details were largely worked out by looking at and recording the empirical evidence of the staircase and ensuring that almost none of this evidence was removed in the restoration. Parts of the black-mortar bound, brick bases of the 'Wyatt' staircase were taken away to accommodate some of the treads. Only well into the project did it become clear how the original mason had laid out his staircase. With hindsight, modern laser-scanning surveying methods would have produced more accurate plans, and potentially a three-dimensional model of the ruins of the grand staircase and its surrounding walls. This would have speeded the reconstruction of its original form. However it would not have removed the need for the skill of the masons to make minor adjustments on site to accommodate the very small details of what survived.

It is hoped that the new grand staircase is a long-term if not permanent addition to Raglan Castle. It has returned an

impressive dignity to this part of the site and allows visitors to see how it worked. They can explore the tower beyond and enjoy the magnificent views over the relict gardens and parklands that it offers. Earlier removers and restorers of the staircase had other motives for their actions. The Grand Dilapidator was following the orders of the second duke in maximising income from stripping out saleable parts of the castle. The sixth duke was looking for a rapid and serviceable restoration of the access to the top of the tower, as part of the entertainment of his guests in the 1820s.

It is more difficult to understand the motive for the removal of the ashlar elements of the 'Wyatt' staircase by the Ministry of Works. The Ministry's philosophy developed by its senior professional officers, Sir Charles Peers and Sir Frank Baines, is often summarised as 'keep as found' (Keay 2004). However not all periods of construction were treated equally. What were seen as inappropriate restorations or additions, particularly from the nineteenth century, were removed to leave the monument in its pure medieval state.

Whether it was the Ministry's intention to replace the staircase is not recorded. Very few records from the 1950s survive, as works seem to have been the subject of verbal instructions to the direct labour force. For a time visitors were left to scramble up the robbed

out remains and get into the tower doorway and so up to the top. Graffiti suggest that this may have been allowed into the 1970s, after which it must have been decided to be unsafe. The initial reconstruction of the staircase was undertaken in wood and metal. This design solved the problem of not modifying any of the historic fabric, but did nothing to express the former dignity and function of the original. Given the choice of materials this solution was only ever going to be short term.

The partial restoration of the original staircase in stone was begun as both English Heritage and Cadw were developing their *Conservation Principles* (English Heritage 2008; Cadw 2011). Up to this point, the conservation philosophy of the state heritage bodies was to 'keep as found'. However, the intention of these *Conservation Principles* was to broaden the values against which conservation judgements, such as those required to restore the Grand Staircase, were made. In working towards the solution that was finally adopted, more than the evidential value or the historic fabric was taken into account. Considerable efforts were made to understand the historic values of the staircase and its pioneering function, and to restore the aesthetic value of this part of the site. Most successful has been the increase in the communal value from the enjoyment that it has brought to the visitors who now can process up and down the staircase and take the views from the top of the tower. Conservation philosophy changes with time and different needs. Additions to great ruinous sites need to be thought through with great care and undertaken with the same level of craftsmanship as the medieval workers achieved, to give them a degree of authenticity, yet should never try to fool those who visit that they are original to the building.

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