

On site

Begun in 1574 by courtier Henry Compton and completed by his son William Compton, 1st Earl of Northampton, Castle Ashby House in Northamptonshire was originally built as an 'E'-shape mansion to celebrate the coronation of Elizabeth I. Major remodelling from 1624-35 included the construction of the front façade and enlarging of the east and west ranges. In the 18th century the Elizabethan gardens were remodelled by Capability Brown. The remaining "Grande Avenue" to the south stretches for three-and-a-half miles over the main Northampton/Bedford Road and into the deer park beyond.

The estate office is located to the west of the main house in an early 18th century, seven-bay former coach house with coursed limestone rubble walls and a tall oak-framed roof structure. In July 2014 the building was severely damaged by a fire that destroyed the roof and most of the interior. Only the external masonry walls and gables, a number of internal partitions and three truss chords of the oak roof structure survived the blaze.

Following the fire, Freeland Rees Roberts Architects and insurance recovery specialists Austin Newport Group were appointed to plan and oversee the work to repair and reinstate the Grade II-listed building. Unfortunately, many drawings, building records and most of the estate archive had been kept in the estate office and were destroyed by the fire. No documents and plans of the former coach house survived and archive searches at the County Records Office and Building Control produced no results.

As much evidence as possible was collected from site investigations and from photographs taken during and after the fire. From this, architectural and structural drawings were produced, and the detailed cataloguing and recording of size, shape and position of key structural timbers and other features during debris clearing have allowed the primary oak frame and the external shell of the building to be reinstated in traditional techniques and materials, and close to its pre-fire appearance and detailing.

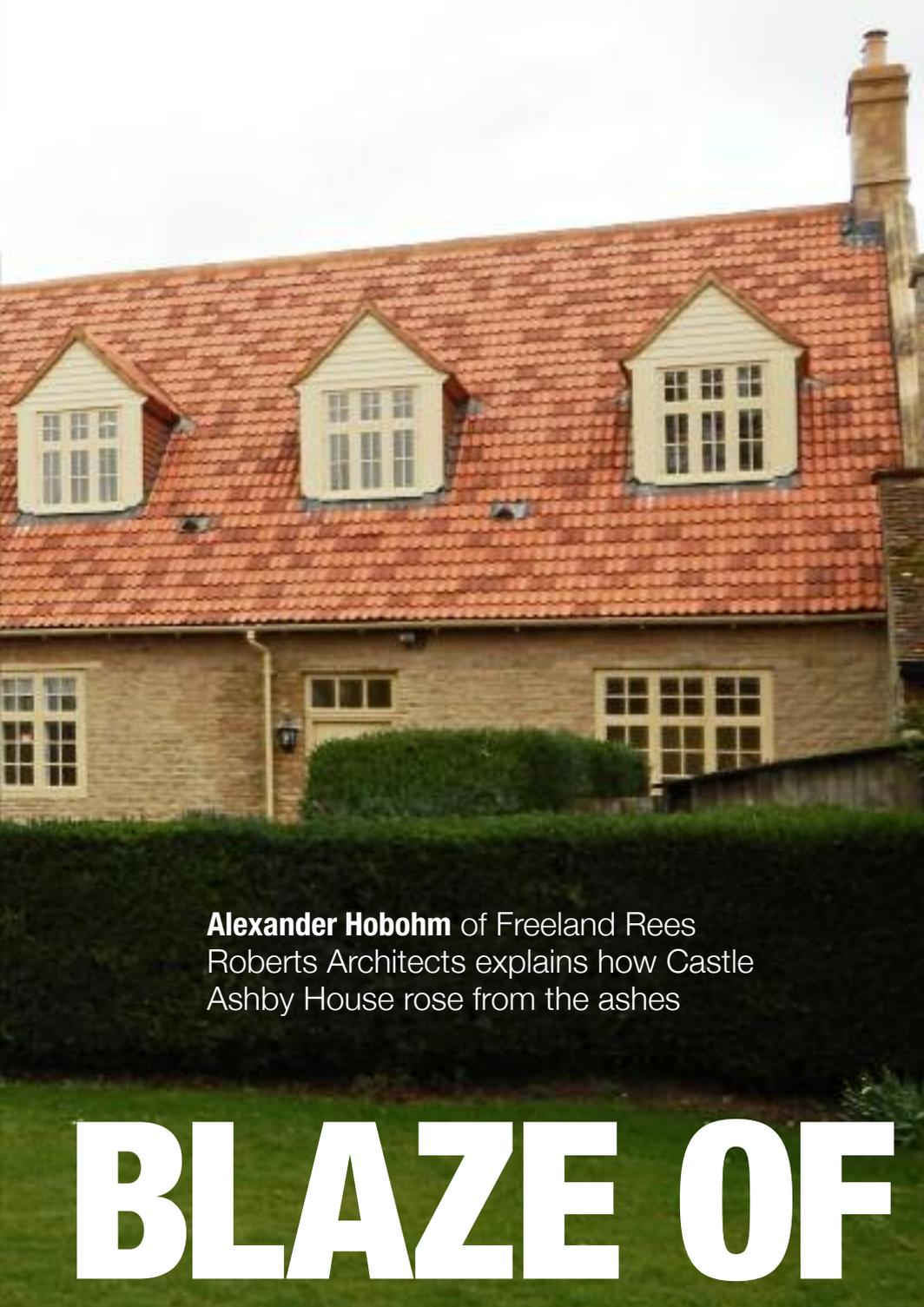
The repair decisions taken during the project were aimed at carefully balancing the views and requirements of the main parties involved. Strict



meetings. The client was also keen to make some adjustments to the internal layout of the building, which had evolved in a piecemeal way over many years and was not particularly suitable for the use as an office and did not meet current regulations on fire safety and escape routes.

Based on the above parameters, it was felt that sufficient site evidence of the oak first floor and roof structure had survived to repair the external shell of the building close to its pre-fire detailing. Some of the existing oak truss chords could be retained and were

conditions from the insurers for like-for-like reinstatement of the pre-fire construction and appearance wherever possible had to be put into the context of advice on repair strategy received from the local authority during preliminary site



Alexander Hobohm of Freeland Rees Roberts Architects explains how Castle Ashby House rose from the ashes

BLAZE OF GLORY

repaired in a sensitive but clearly visible manner to distinguish between old and new fabric. The new oak frame, which is partly exposed to view on the first floor, broadly follows the pre-fire appearance but with simplified detailing and without mouldings or traditional surface finish to clearly communicate its modern origin. Internally, surviving historic features on the ground floor have been retained and repaired wherever possible, with new construction elements, such as the new main staircase, detailed in traditional materials but with a confident contemporary design language to clearly distinguish historic fabric from alterations and new additions.

The extensive damage to the first floor meant that it was almost entirely lost with very little evidence of layout and construction remaining. Even with the benefit of any personal recollections of the layout and possible construction this would

not have provided sufficient evidence of any original or historic layout on this floor. The local authority and the insurers therefore agreed to a new first-floor layout with new efficiently organised offices and circulation spaces inserted into the rhythm of the oak trusses. Simple architectural details and a reduced palette of materials clearly distinguish the first floor offices from other areas of the building that (partly) survived the fire and could be conserved and repaired.

Existing masonry had been severely damaged by the fire and by collapsing roof members. As a first step, the top of the east and west walls and parts of the stone gables had to be rebuilt and strengthened to prepare the rubble masonry walls for the reinstatement of the timber roof structure.

Five new oak trusses, as well as most of the first floor structure were manufactured from green

and part-seasoned oak to existing details and with traditional jointing techniques. A number of stainless steel fitch plates and connectors were introduced to satisfy structural loading calculations for the use of the first floor as offices.

Elm Tree & Partners Ltd provided the complete oak-framing package and following assembly on the ground, the new trusses were craned into position. In addition to the primary roof and floor structure, all rafters, roof dormers and floor joists have been reinstated in oak to replicate the pre-fire detailing.

Three of the large oak truss chords spanning the width of the building were only partly damaged and could be retained and repaired in situ. The oak trusses over the garage had previously been supported by a steel beam and cast iron column. This detail was recreated and provided the opportunity to splice the two new



Left: Castle Ashby after the repair work had been carried out; **Inset left:** The damage done to the building by the fire; **Above:** The main staircase following the repair work

On site

truss chords at the centre as 11-metre-long oak members of the required section could not be sourced.

Twelve dormer windows have been reinstated as closely as possible to their pre-fire appearance. To improve thermal performance, high performance insulation has been installed to the dormer cheeks and slimline double-glazing has been used to achieve a degree of thermal insulation, while keeping the width of the glazing bars as narrow as possible.

All of the existing clay roof tiles were lost in the fire. A few remaining tiles looked visually intact but tapping indicated that their integrity has been compromised. New handmade clay tiles to matching (non-standard) profile have been made by Wienerberger Ltd.

Internally, the layout of the ground floor was mostly intact, although the structure had suffered from varying levels of fire and water damage. Work in those areas has focused on the repair and reinstatement of existing historic fabric and finishes. In addition, a relatively modern staircase has been removed to free up the main hall and to allow two former doorways to be reinstated. This has created a much improved room layout with four independent offices and a new staircase to help meet Fire Regulations and provide Building Regulations' compliant access to the first floor. The main hall can now be experienced in its original appearance and layout again and a previously hidden internal window above the cellar door has been exposed and will further improve the quality of the space. The garage has been recreated as a single space and without reinstating previous modern partition walls.

Most of the first floor structure was destroyed by the fire with very little evidence of layout and construction remaining. This provided the opportunity to re-think the first floor layout and to create high quality and efficiently organised work spaces, as well as better circulation and fire escape routes. All brick partitions on the first floor were damaged by the fire and had to be taken down. The existing bricks were salvaged and re-used in the re-building of the cores of the stone gable walls.

The new first floor structural work initially created a single open volume with five oak trusses, similar to the large storage loft of the original coach house. To make the space useable as offices, partitions have been inserted to create a mixture of individual offices and open plan work/meeting spaces, a reception area, a meeting room and various support spaces. The oak trusses and roof



Top: Old and new roof timbers; **Left:** The interior of the building after the work; **Above:** During at beginning of work Castle Ashby protecting and assessing the site

members have been kept exposed wherever possible. A kitchen and WCs with improved layouts have been recreated in the northern bay. A new DDA-compliant WC has been installed on the ground floor in the area of an existing store.

Thermal improvements on the ground floor proved difficult without compromising historic features and appearance of the rooms. A number of existing windows have been fitted with carefully detailed timber secondary glazing. To compensate for heat loss on the ground floor, the first floor and roof structure have been insulated with high performance insulation, and the whole building is

heated from the estate's central biomass plant.

The repairs and reinstatement of the estate office carefully merge the old and the new to create a high quality work environment in a building that confidently shows its history and the devastating event in July 2014 while celebrating its new lease of life.

● *Client: Compton Estates; Contractor: Austin Newport Group; Architect: Freeland Rees Roberts; Services Engineer: LAM Associates; Structural Engineer: SFK Consulting; Oak Framing: Elm Tree & Partners; Completion: January 2016*