The Landmark Trust

ASTLEY CASTLE
History Album

Volume II:
Conservation & Conversion

Written by Alastair Dick-Cleland & Caroline Stanford
June 2012

The Landmark Trust Shottesbrooke Maidenhead Berkshire SL6 3SW
Charity registered in England & Wales 243312 *and Scotland* SC039205

Bookings 01628 825925 *Office* 01628 825920 *Facsimile* 01628 825417 *Website*
www.landmarktrust.org.uk

BASIC DETAILS

Built:	13th – 21st century
Listed:	Grade II*, within Scheduled Monument
Tenure:	99 year lease
Opened as a Landmark:	July 2012

Phase 1 – Repair & Consolidation

Building surveyor	Peter Napier
Structural engineer	Jon Avent of Mann Williams
Quantity surveyor	Adrian Stenning
Ecologist	Penny Angold of Ampa Associates
Building analysis	Richard Morriss, Richard Morriss Associates
Contractor	Croft Building Conservation Ltd
Local contractor	Buildright, with Len Hardy & David Dalton.

Phase 2 – New Build

Architects	Witherford Watson Mann Architects
QS & Contract Administrator	Tony Dent of Jackson Coles
Structural Engineers	David Derby & Mark Tyler of Price & Myers
Archaeologist	Pat Frost of Castlering Archaeology
Main contractor	William Anelay Ltd of York
Site managers	David Marsh & Gareth Townend
Building control	Oculus Building Consultancy Ltd of Bath
Joinery	Kentside of Kendall
Staircase metalwork	Kendrew of Harrogate
Electrical services	H. Smith (Electrical Ltd) of Wakefield
Mechanical services	R N Mechanical of Doncaster
Landmark direct labour team	Len Hardy, John Brown, Nathan Grassby, Stuart Leavy & Carl Dowding

Phase 3 - Curtain Wall

Contractor	Midland Conservation Ltd of Walsall; Len Hardy
Structural Engineers	Jon Avent & Ed Hill of Mann Williams
Landscaping/gardens	Bowplant of Astley, British Trust for Conservation Volunteers, Alan Sanders.
Coach House & sheds	Len Hardy, John Brown, Buildright, David Dalton

Acknowledgement: The documentary research of Richard Morriss Associates, who wrote the Conservation Plan for Astley Castle, is gratefully acknowledged in the writing of this album, as is the contribution of Alastair Dick Cleland to the account of the castle's conservation and conversion.

DONOR ACKNOWLEDGMENTS

Landmark gratefully acknowledges the support of the following, without whom Astley Castle could not have been rescued.

Supported by The National Lottery® through the Heritage Lottery Fund | heritage lottery fund

The AlanEvans Memorial Trust
The H B AllenCharitable Trust
Mr J Armitage
Mr & Mrs R Cadbury
The Charlotte Bonham-Carter Charitable Trust
CHK Charities Ltd
Country Houses Foundation
The Rt Honthe Viscount Daventry
Mr R B Eaton
Mr W Eccles
The HonPiers Gibson
Glass-house Trust
Mrs A Gloag OBE
The Gunter Charitable Trust
Mr & Mrs D H L Hopkinson
N Warwickshire LEADER funded by DEFRA and the EU
Mr S R Martin
The 29th May 1961 Charitable Trust
The Mercers' Company
The Philips Charitable Trust
The Veneziana Fund

We are grateful to all these organisations and individuals, and many others who supported our appeal, including Guardians of Astley Castle, Landmark Friends and Patrons, gifts in wills, and supporters who wish to remain anonymous.

Astley Castle from the outh west in the winter of 2007. Note too the pattern of the molehills in the foreground. Their path often an indication of the footings of lost buildings.

CONTENTS

The history of Astley Castle is told in Volume 1 of this album.

For those interested, copies of Richard Morriss's Conservation Plan volumes dealing with the Building Analysis, Moated Island and Wider Landscape; of Witherford Watson Mann Architects' competition entry and Design & Access Statement will all be found on the bookcase at Astley Castle.

East (top) and west elevations of Astley Castle in September 2007. Note the brick skin of the vice tower still partially standing in the centre below, and the northern portions of the castle that could not be saved and had to be taken down.

Astley Castle – Summary of its History

Strictly speaking a fortified manor more than a castle, the site at Astley Castle has been in continuous occupation since the Saxon period. At Grade II*, the castle is counted of national significance. Its site includes the moated castle, gateway and curtain walls, lake, church and the ghost of pleasure gardens in a picturesque landscape.

By the early 12th century it was held by Philip de Estlega [Astley] from the Earl of Warwick. Philip's grandson Thomas de Estleye was killed at the battle of Evesham fighting with Simon de Montfort in1265. The castle was crenellated and moated in1266, when it briefly changed hands before reverting to the Astleys. In1338, Sir Thomas Astley founded a chantry in the adjacent parish church to pray for the family's souls. In1343, Thomas converted this to a college of priests dedicated to the same purpose and funded an extensive rebuilding programme of which only the chancel survives. By 1420, the manor had passed through marriage to the Grey family, through whom it became entangled with the succession to the throne of England and earned its association with three queens of England.

The first, Elizabeth Woodville, probably lived at Astley in the mid-15th century as Sir John Grey's wife. Grey died fighting for the Lancastrians at the Battle of St Albans in1461 during the Wars of the Roses. As a young widow, Elizabeth caught the eye of Edward IV, the Yorkist claimant to the throne. She became his queen and bore him the ill-fated young princes who later died in the Tower. The second Astley queen was the daughter of Edward IV and Elizabeth Woodville, known as Elizabeth of York, who became wife of Henry VII.

It was under the Greys in the late 15th century that the castle achieved its most mature and considered form, both as a building and within its setting, which was enclosed at this time. However, after the death of Edward VI in1553, the family overreached itself. Despite the better claims of both Princesses Mary and Elizabeth to succeed to the throne, Henry Grey, Duke of Suffolk seized the initiative and placed his daughter, Lady Jane Grey, on the throne. Jane's reign lasted just nine days, before Mary I's superior claims prevailed. Both Jane and later her father were beheaded for treason– after further rebellion; Lord Grey was captured in a hollow oak tree at Astley.

In1600, the castle was bought by Sir Edward Chamberlain. The Chamberlains restored the church, which had fallen into disrepair after the Dissolution, and improved the castle. During the Civil War, Astley became a garrison for Parliamentary soldiers. In1674 Astley Castle was bought by the Newdigate family who owned the neighbouring Arbury Estate. From this time on, the castle became a subsidiary dwelling. In the 1770s, an Astley from a cadet branch, Sir John Astley, leased the castle briefly and was responsible for the construction of the stables and coach house, in consultation with his landlord, Sir Roger Newdigate 5th Bart, who was transforming Arbury Hall into the Gothick masterpiece we see today.

In the 19th century, Astley Castle became a dower house and was then let to a succession of tenants. It also inspired writer George Eliot, born Mary Ann Evans,

who grew up on the Arbury Estate where her father was an agent. Astley is said to be the model for 'Knebley' in Eliot's *Scenes of Clerical Life* (1857). Eliot drew inspiration for several of her characters from those she grew up with.

Requisitioned during World War II for convalescing service men, a dilapidated Astley Castle was restored by the Tunnicliffes in the 1950s as a hotel. The castle completed its slide from grace when it was gutted by a mysterious fire in1978, just days after its lease had expired. Vandalism, unauthorised stripping out and collapse made its plight still worse. The site is so large and so complex that for many years, no solution could be found to give it a future.

Astley Castle became a ruin. As a structure, it had become so ravaged by time and events that no single element of its architecture could be felt to be a truly exceptional example of its kind. By 2007, English Heritage had listed it as one of the sixteen most endangered sites in Britain and a solution was urgently needed.

In the late 1990s, the Landmark Trust had tried to provide the site with a viable future through its usual solution of conventional restoration and conversion for holidays, but the site is so complex that such an approach proved impractical, both technically (there were no internal finishes or fixtures left to restore) and financially. In2005, Landmark proposed a more radical solution: to reinstate occupancy of Astley Castle in a manner appropriate for the 21st century. An architectural competition was held, the brief accepting that some parts of the castle were now beyond restoration, but which sought to create good modern accommodation within the ancient ruins. The winning scheme by architects Witherford Watson Mann keeps the sense of living within the castle, making the most the views both into and out of the site.

After careful recording, those parts of the building beyond pragmatic repair were takedown. The new-build introduced also consolidates and ties together what could be saved of the original fabric as unobtrusively as possible, leaving the castle's form in the landscape largely unchanged. There was further work on the wider setting, including repairs to the curtain walls and moat, the 18th-century Gothick stable block. The historic parkland surrounding the moated site, much of which is a Scheduled Monument, has been opened up with public trails.

Thanks to an HLF-funded Access & Involvement Programme, many people learnt about and helped with the restoration project. The British Trust for Conservation Volunteers was active in site clearance and landscaping and numerous schools visited. Astley Art Club were 'artists in-residence.' Another competition was held to create a new knot garden, replacing a feature that had existed on the site in some form since the late 17th century with one that echoes Astley's 'Three Queens.' Astley Castle can finally face its future with confidence again, thanks too to all who will stay in it, so contributing towards its future maintenance.

Introduction – the Architectural Competition

Landmark has already tried, and failed, to find a solution for Astley Castle in the 1990s, taking a more conventional approach to restoring just part of the ruin as a Landmark holiday let. After some 20 or so such outline schemes, we had admitted defeat and relinquished our lease back to the Arbury Estate.

The decision to 'revisit' Astley Castle was taken in 2005, which was Landmark's 40th anniversary year. As early as 2000, thinking about a celebration of the turning of the millennium, we had pondered whether we might contemplate a different approach for saving a building at risk in the 21st century, by dropping in architecture of our own time as a means of conserving historic fabric. This concept re-surfaced in 2005, this time specifically in relation to Astley Castle, and in conjunction with the radical idea of taking down substantial parts of the remaining fabric if too far decayed to be salvageable. In addressing 'The last chance of survival for a building of national significance,' as we dubbed the Astley project, we hoped to create a Landmark for the 21st century.

This is of course far from Landmark's normal conservative approach, and can only be contemplated when, as at Astley, the building is so far decayed that no evidence remained to carry out a conventional 'restoration' to find a new use for it, even if this might be financially feasible. Gradually, a few initial advocates within the team convinced others, and then the Trustees bought into what for Landmark was an unprecedented approach.

Originally, the thought was to hold a formal competition through the RIBA competitions office. When we learnt that an RIBA competition could result in excess of 100 entries, we rethought, in particular not wanting to risk such a high profile event when it might well come to nothing again.

So the idea was transformed into a much smaller competition 'by invitation'.

A shortlist was drawn up to include a deliberately wide range of practices including both 'conservation' and 'contemporary' architects. We consulted the Society for the Protection of Ancient Buildings, whose approval we were keen to seek (and who were very supportive of the 'new build' approach), and they also suggested some names to consider. We included others we either had already worked with, or whose work we had admired and considered relevant. We also sounded out English Heritage, who cautiously encouraged the general concept proposed. In the end a list of twelve architectural practices was settled upon:-

BattertonTyack*
Caruso StJohn
Ptolemy Dean
Robert & Jacqui Demaus*
Jamie Fobert*
Mark Hines – our architect
Sanei Hopkins
John McAslan
Andrew Townsend
Purcell Miller Tritton
Stanton Williams
Witherford Watson Mann*

* shortlisted

A brief was drawn up, asking for

> *'a bold response to the question of how a strong contemporary building can cohabit with one that is both remarkable and very old....We see our work as another stage in the history of the building...[and] have decided to explore an entirely new approach, the purpose of which is to give an exemplary integration of old and new for a fine building beyond the reach of normal restoration. The whole site will then be given new life and new use by the creation of a modern building of the highest quality. Form, materials,*

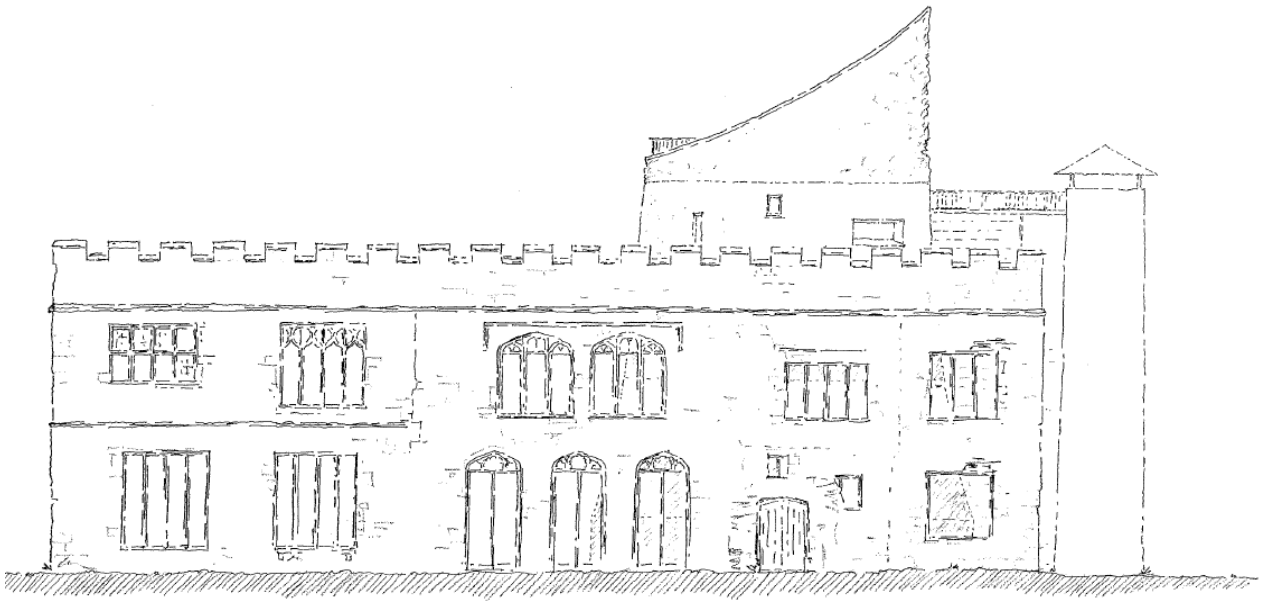
> *methods of construction and precise location within the building footprint will be at the discretion of the architect, but the result must be an exceptional building which meets Sir Henry Wootton's three criteria of 'firmness, commodity and delight' in an entirely contemporary way. To contain the overall cost, it is likely that significant parts of the Castle will have to be taken down and not rebuilt, with the remaining ruined sections stabilised....*
>
> *The new building should complement the existing ruin and enhance enjoyment of the natural and historic features of this ancient place in all lights and all weathers and in every season of the year. To this end it should be well planned and designed with views of, as well as from, the surrounding landscape in mind.*

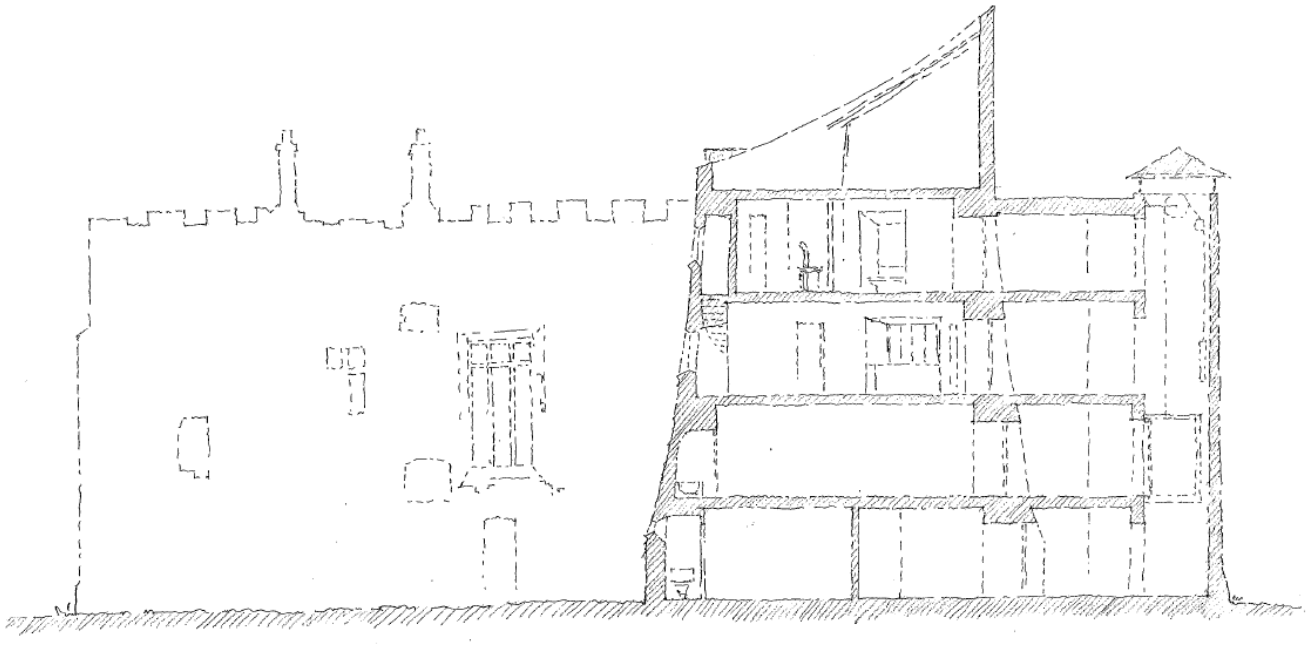
The brief included a site plan marking those parts of the castle walls whose removal could not be contemplated, but was deliberately non-restrictive as to where on the building's footprint the new accommodation might sit. At Landmark's Trustees' behest, the brief also set a budget of £500,000 for the new build, within a total estimate including stabilisation and removal of the ruins of £1.8 million. With hindsight, this was optimistic (the final project cost was some £2.5 million) but such initial prudence was of course necessary to achieve something financially feasible.

We were pleased and relieved that all twelve practices accepted the invitation to take part, despite the very modest contribution towards their expenses that we were able to provide. We were also delighted with the submissions, all of which provided thoughtful, imaginative and very different responses to this difficult site.

Some treated it primarily as a landscape; some chose to build on open ground rather than integrate with the existing structure; others incorporated the living accommodation within the existing fabric. Towers were a recurring theme for a few, as was use of the former great hall volume at the south end. Some made the need for structural consolidation part of the scheme. The choice of materials also varied widely, from the

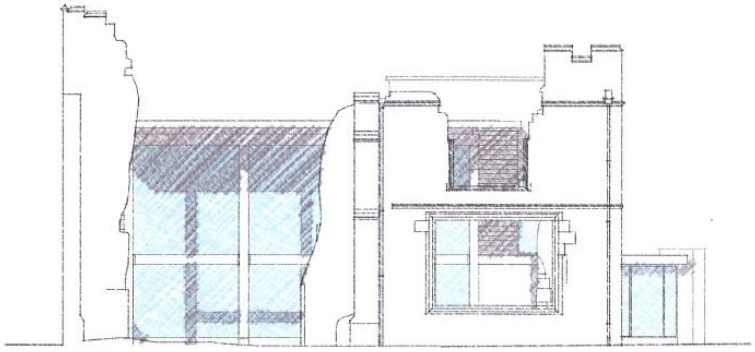
traditional to the space age. Some punctured the existing profile of the castle with the new build, others chose to hunker-down the new accommodation within it. All the entries were stimulating and thought-provoking responses to the site. Representative images follow for each of the schemes.





ANDREW TOWNSEND ARCHITECTS

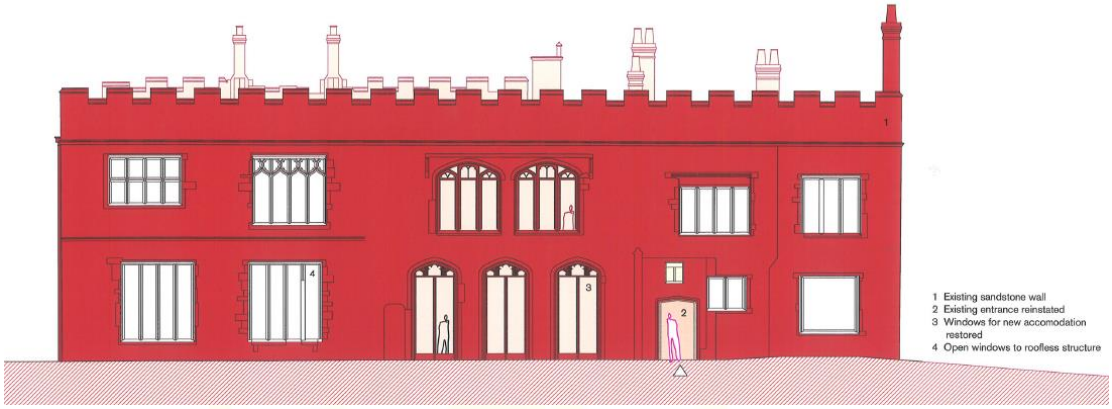
View from Internal Courtyard

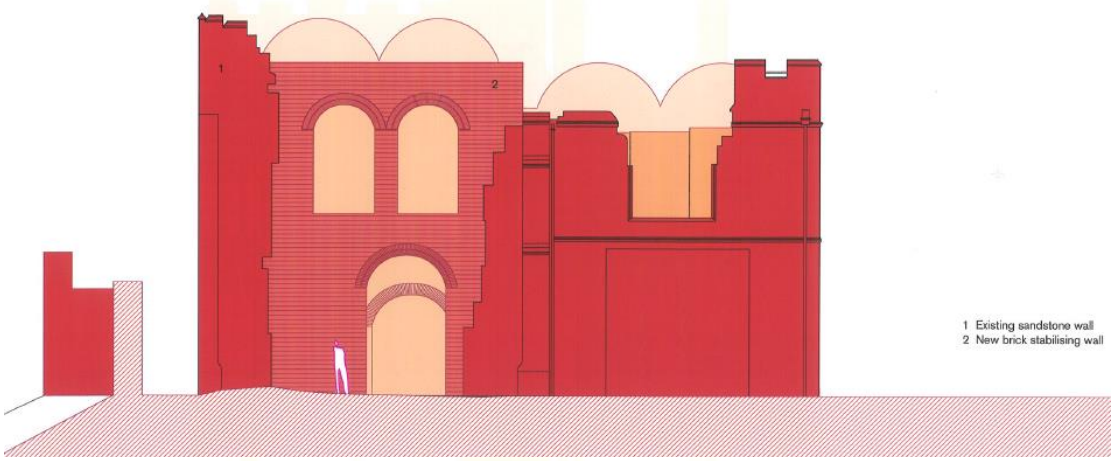


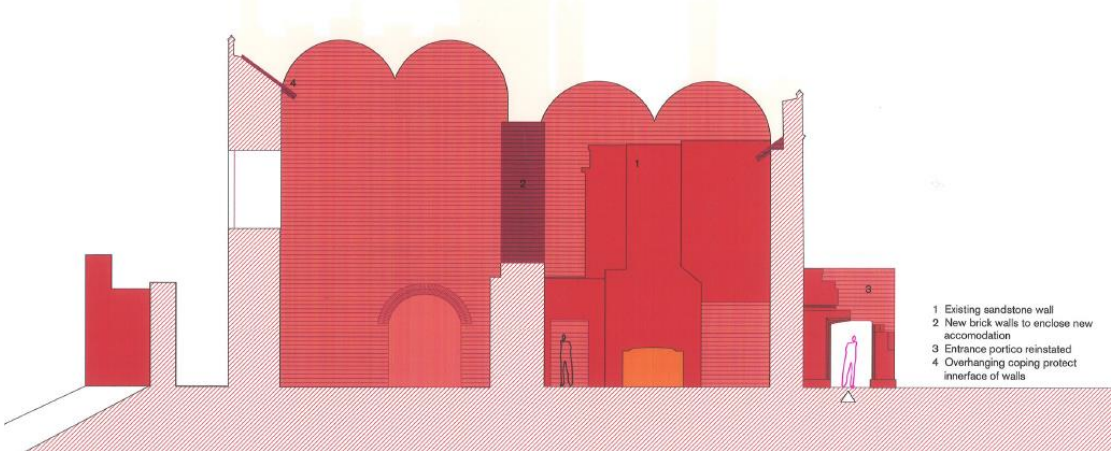
South elevation to Castle

West elevation

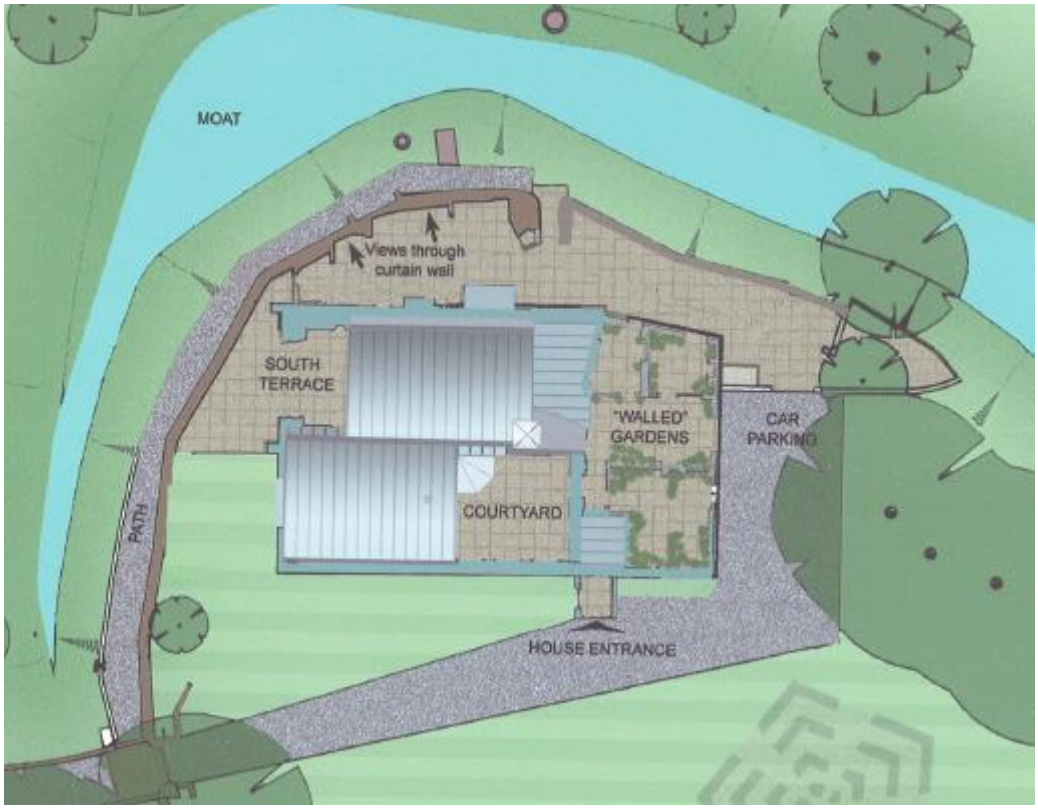
BATTERTON TYACK







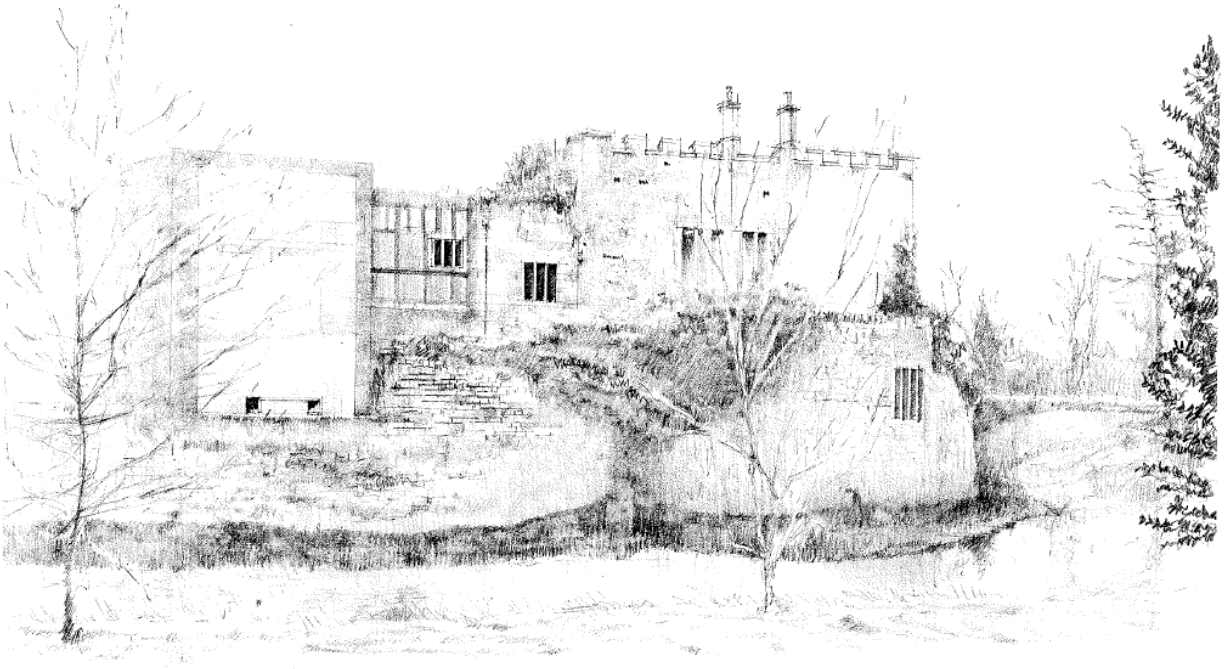
CARUSO ST JOHN



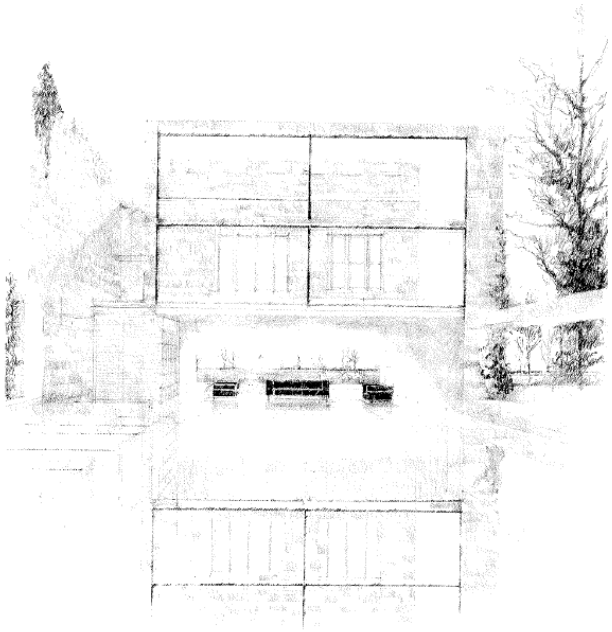
THE DEMAUS PARTNERSHIP - SHORTLISTED

JAMIE FOBERT - SHORTLISTED

JOHN MCASLAN & PARTNERS



PROPOSED VIEW FROM THE WEST



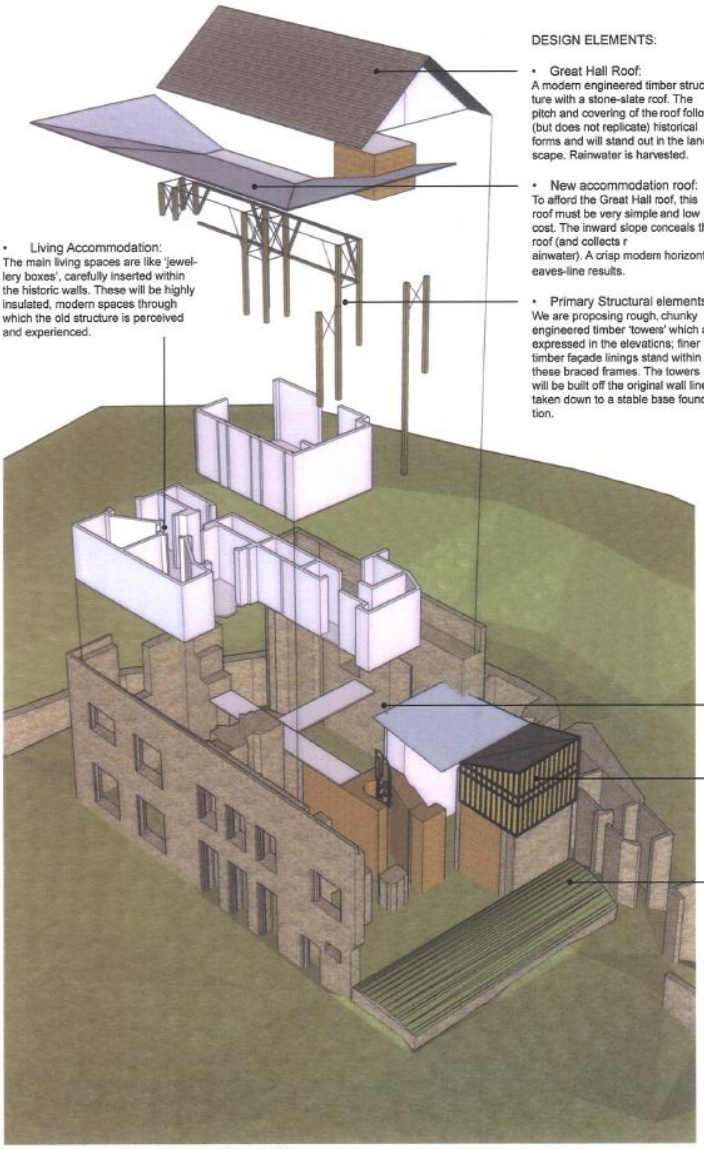
OUR ARCHITECT

PTOLOMY DEAN

A 21ST CENTURY LANDMARK FOR ASTLEY CASTLE

DESIGN COMPETITION

SHEET 1



EXPLODED ISOMETRIC PROJECTION

DESIGN ELEMENTS:

- Great Hall Roof:
A modern engineered timber structure with a stone-slate roof. The pitch and covering of the roof follows (but does not replicate) historical forms and will stand out in the landscape. Rainwater is harvested.

- New accommodation roof:
To afford the Great Hall roof, this roof must be very simple and low cost. The inward slope conceals the roof (and collects r ainwater). A crisp modern horizontal eaves-line results.

- Primary Structural elements.
We are proposing rough, chunky engineered timber 'towers' which are expressed in the elevations; finer timber façade linings stand within these braced frames. The towers will be built off the original wall lines, taken down to a stable base foundation.

- Living Accommodation:
The main living spaces are like 'jewellery boxes', carefully inserted within the historic walls. These will be highly insulated, modern spaces through which the old structure is perceived and experienced.

GENERAL DESIGN APPROACH:

Our primary observation is that, for long term success in consolidating a ruin, you need to roof the building. The roof structure can then provide support for the walls as well as restore some relevance and meaning to the ruin.

The interior of the 12C castle is now lost. In this proposal the significance of the earliest history of the castle resonates in the 'Great Hall' space, created by simply roofing the primary volume of the ruin. The space is otherwise left as-found, with just one intervention – a viewing bridge.

The new Landmark accommodation is inserted within the Tudor and 1627 extensions at first floor level – sheltered by the new roof and making best advantage of views. The sheltered ground floor areas created become summer recreation spaces.

We are keen to retain a fragment of the Long Gallery structure, as well as devise an innovative approach to the creation of new archaeology required by the demolition of much of the ruin. We cannot afford to be precious with the structure; our proposals interpret the lines and forms of the ruin and re-cycle as much as can be used.

This building can be 'carbon-neutral' and make a positive impact on the local environment and ecology. We have begun to explore how as represented in the drawings and annotations.

- Circulation spaces:
We propose new stairs where they were originally located, but in-expensive modern steel structures.

- Long Gallery:
We hope that something of this important structure can be saved, re-used and given a meaningful use.

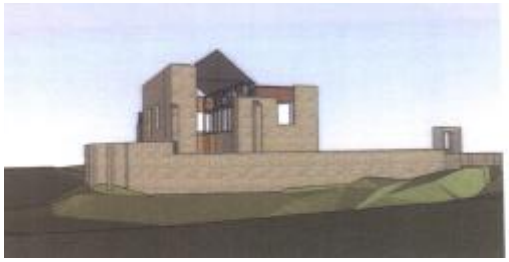
- Archaeological mound:
All demolition materials will be retained on site and used for re-instating sections of wall; the rest will be formed into a planted mound within the footprint of the demolished Victorian extension.

GENERAL ASPIRATIONS AND THOUGHTS

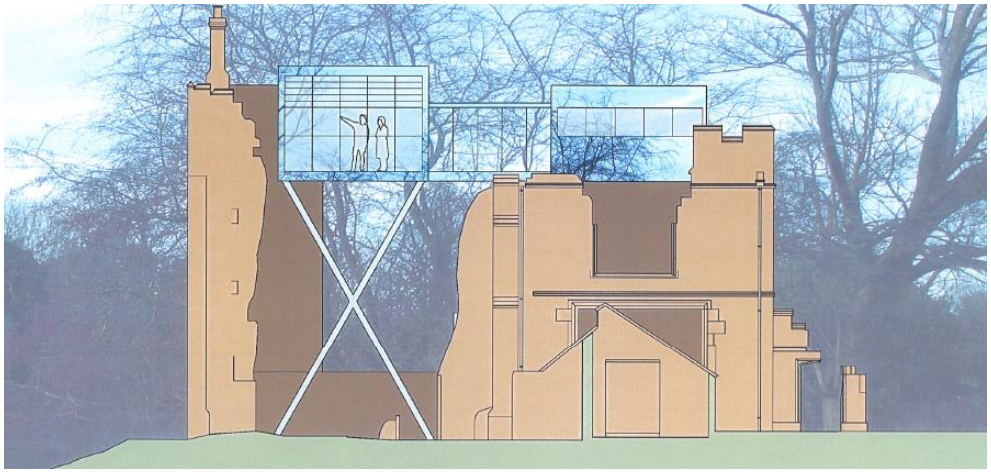
- work to be inseparable from its surroundings, aesthetically and functionally
- site-specific; deep-rooted sense of place.
- immersion in topography, climate, materials and culture - (alternative to overbearing, "iconic", fit-anywhere architecture)
- poetry in stone, timber and natural light. (great ideas arise from the small details of life)
- satisfying marriage of modernism, tradition and rock-solid craftsmanship.

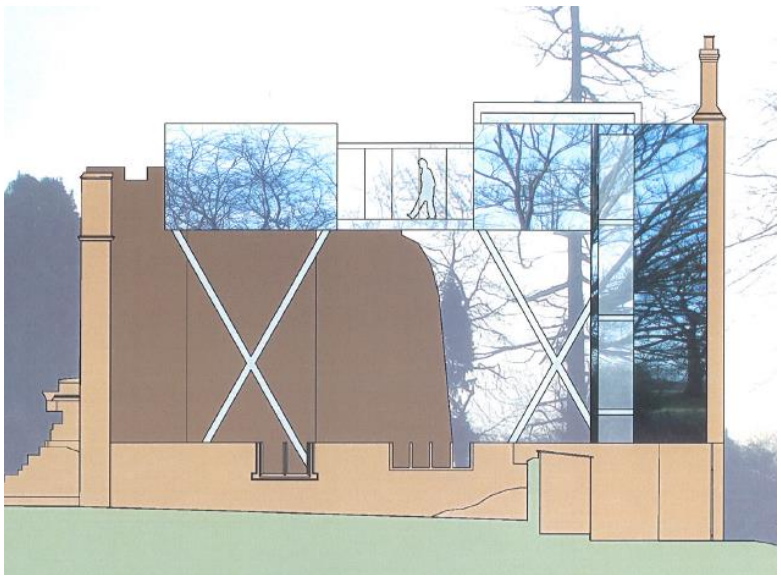
PURCELL MILLER TRITON

architects, designers and historic buildings consultants



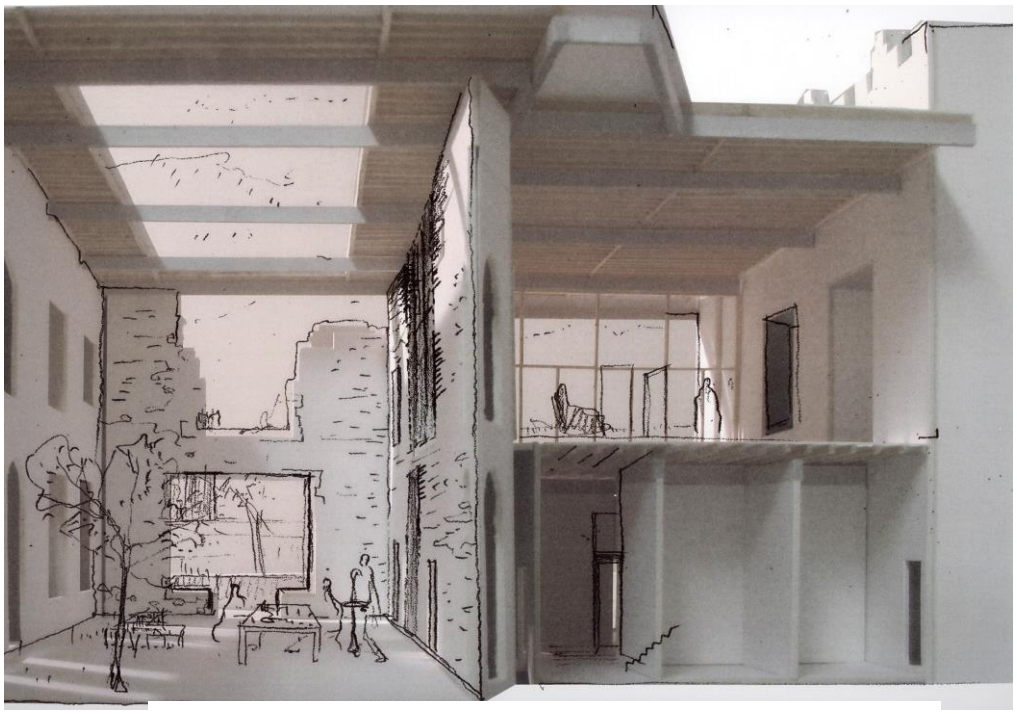
PURCELL MILLER TRITON





SANEI HOPKINS

STANTON WILLIAMS



WITHERFORD WATSON MANN –
SHORTLISTED & WINNING SUBMISSION

The Demaus Partnership, Jamie Fobert, Batterton Tyack, and Witherford Watson Mann Architects were shortlisted, and invited to work up their proposals in more detail to present to the judging panel (Martin Drury, Richard Collins, Peter Pearce, John Evetts, Caroline Stanford and Alastair Dick-Cleland).

The unanimous decision was for the intelligent, sensitive and pragmatic scheme submitted by Stephen Witherford, Chris Watson and William Mann of Witherford Watson Mann Architects (WWM). Its key strengths were perceived as being that it utilised the historic walls as part of the new accommodation; that it was enabled reuse of the oldest, most significant part of the castle; that provided a good structural solution to unstable historic walls; that it left the profile of the castle in the landscape largely unchanged, and that it provided the main living space on the 1st floor in the old medieval hall area and thus maximised views out to the surrounding landscape. We also liked the idea of using the space between the west and curtain walls to fit in two of the four bedrooms.

The competition entries were submitted in February 2007 and the final choice made in March the same year.

There then followed the lengthy process of working the scheme up into sufficient detail to obtain planning and listed planning consents. We consulted very closely with English Heritage and North Warwickshire Borough Council as the local authority, who, like the SPAB, were very supportive of the approach, accepting that, as Astley's 'last chance', a radical solution was justified. WWM's working method relies closely on the use of scale models – indeed a first rough model had been part of their original competition submission – and this model became almost like an additional member of the project team as the scheme evolved and the details were refined. It was also used for daylight simulation tests, to

Astley Castle from the south west long before the fire in 1978

The same view in 2005 with much of the south elevation now collapsed

check that the openings allowed by the historic fabric did indeed provide pleasant living spaces.

We were enormously grateful for early confirmation of a £300,000 grant from English Heritage, soon followed by a very generous donation from the Arbury Estate as owner of the castle, and £50,000 allocated from Landmark's own unrestricted funds by the Trustees. This provided an initial pot of money with which to get started, which we judged to be essential given the castle's on-going and deteriorating condition.

When Landmark had first been involved with Astley, the castle had been cleared out of all the fallen debris in 1996 by a small local firm called Gilday & Harding. Subsequently an access scaffold was put up to enable better understanding of the higher levels of the castle. The building archaeologist at the time was Richard Morriss, whose work advanced understanding of the castle's fabric enormously and informed the numerous schemes provided at the time by Michael Reardon Associates, and by Rodney Melville & Partners, who had shown great earlier commitment in pursuit of a workable conventional conservation scheme.

By the time Landmark handed back its original lease of the castle to the Arbury Estate in 2000, some historic masonry was already leaning on the scaffolding. As this was never designed to carry imposed loads the scaffolding company refused to dismantle it, and so we had to purchase it and it remained in place, providing perhaps some propping but also a challenge to the local youth, who in some cases kicked out the Acrow props that had also been left in situ.

Most of the vice had collapsed by 2007 leaving only a thin brick inner lining. Its remnants now hold the lift.

By the time of the competition and our re-engagement with Astley, the fabric had gone downhill rapidly, and much of the interior of the castle was full once again with collapsed masonry and timbers. In particular, the top section of the stair turret/vice had collapsed taking much of the original medieval north wall with it. Other areas were on the point of collapse to the extent that it was unsafe even to enter the building (a point we made to the competition entrants). Our fear was that if more of the vice collapsed and took part of the east elevation with it, there was a real danger that Astley Castle would have decayed too far for anything to be worth saving and so would no longer be worthwhile converting.

We were delighted to welcome Richard Morriss, with his accumulated knowledge of the site, back onto the team as building archaeologist. According to good conservation practice, Richard wrote a comprehensive Conservation Plan on all aspects of the site, which drove all subsequent decisions large and small on the scheme and on which pieces of fabric had to stay and which could be sacrificed.

Areas of collapsed roof at the north end of the castle. Much of this area could not be saved

Above: looking down into the south west corner of the castle, site of today's living room, from a cherry picker before work began.

Below: the unstable 19th-century north gable was considered impracticable to repair and had to be taken down.

Top: Clearing out the N end with a small digger and dumper truck after the taking down of the N gable.

Below:
Clearing out the collapsed debris using a chain on conveyors

Phase 1 – clearance and consolidation

In October 2008, with an initial budget of £400,000, we began Phase 1a – 'clearance' to be followed by Phase 1b, 'consolidation'. Conservation building surveyor Peter Napier oversaw the clearance work, with structural engineering advice provided by Jon Avent of Mann Williams. Adrian Stenning took up the challenge of providing quantity surveying input.

Phase 1a had been preceded by further careful photographic recording and a high level survey using two types of access platforms that could be got onto the site under the gateway arch. Jon Avent took some good 'fish-eye' photos looking down on the ruinous building. We had to take a robust approach once it was agreed which parts of the fabric could not be saved – for example, a sling was used to pull down the late 19th-century north elevation gables. There simply wasn't the time, money or need to carefully dismantle by hand.

Monitoring of the ecology on a site like Astley is essential and a qualified ecologist was brought in at an early stage to survey and monitor. One of the planning conditions was to carry out a bat survey. They were found to be flying around onsite and although there was no specific evidence of any roost, we could not assume this under our planning permission conditions. Work was stopped regularly for the ecologist to go up in a cherry picker and carefully lift tiles, inspect holes etc. No active roosts were found, but 'bat boxes' were installed at high level just in case they decided to take up residence. Perhaps fortunately, none did.

Once the key areas of demolition had been cleared, mostly using a small digger and dumper truck, the main internal clearance could begin. Because the biggest area of debris was where the north wall had collapsed, it wasn't possible to get vehicles in here, and so Croft rigged

TheVictorian cellar underneath the hall. The shelf is for barrels of beer

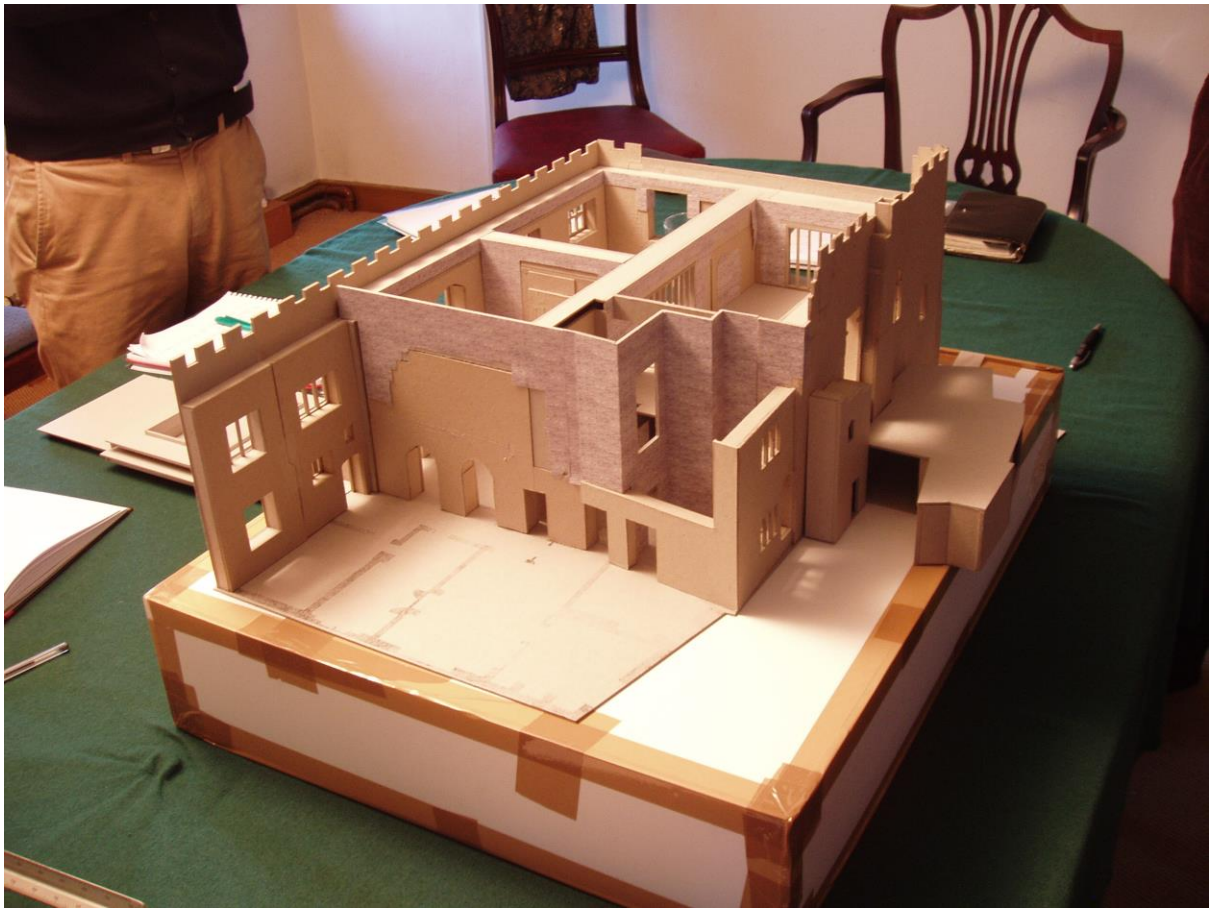
A Cintec anchor in its drilled hole before it has been pumped full of grout

up a series of quarry-type conveyor belt to get all this material out – which had to be loaded onto the conveyors by hand. As the photos show, the rubble was at least 10' high in places. Buried in the rubble was the old medieval doorway in the north wall, which Richard Morriss insisted should be retained. More of this later, but the arch survives, in the bathroom. The old bent and damaged scaffolding was removed (the boards were long rotten) and a new scaffold went up to enable the consolidation to start.

By the end of January 2009 the cellars had been uncovered including a much smaller basement room containing the remains of an old boiler that had fed the ducted hot air system under the stone ground floor paving.

Extensive use was made of Cintec anchors to tie the very vulnerable rubble walls together. These are stainless steel rods enclosed within a fabric 'sock'. A hole is drilled through the wall using a diamond-tipped drill, the anchor is inserted, and then a grout is pumped into the far end of the sock which swells and so fits into any holes and voids within the wall. Once set, the hole is simple plugged with a closely matching piece of stone, leaving an almost invisible repair.

The original WWM scheme had shown the end bay of the east elevation being demolished and we had listed building consent to do this. However, the Landmark team were unhappy about losing such a significant section of a façade which had come to characterise this best known view of the castle and which told an important part of its story of development. It turned out to be no more expensive to keep this bay with some judicious use of Cintecs, than to demolish it and then to have to structurally strengthen the next bay in. So after some discussion, we left the return of the north elevation, which helps act as a buttress to this end of the east elevation.



March 2009: The project team discuss the scheme and an early version of the model.

The latest technology was used to help develop the scheme. An 'artificial sky' at the Bartlett School of Architecture, University College London, here dwarfs the model of the castle. The computerised lamps enable the light to be simulated for any time of year or day, in all weather conditions, to help finetune the placing of windows and openings. As seen in the two examples below, the simulations proved remarkably accurate of the end results (left: first floor, kitchen area; right: the garden court).

A sample panel of different Petersen bricks

Manhandling one of the new oak lintels into position on the west wall

Meanwhile, the question was being addressed of which bricks to use to build the new walls and stitch into the ancient rubblestone structure. This was a hugely important decision, both aesthetically and technically. Aesthetically, there is a huge range of colour and shade in the surviving stonework, from dark greenish grey right through to warm red. We also wanted to ensure that there was no question of new brickwork being confused with old. Technically, the shape and size of the bricks and the bond used to lay them needed to be conducive to the effective tying together and integration of old and new.

Quite rightly, the decision process was led by the architects, who assessed samples from various suppliers from the UK and beyond before they finally recommended Petersen bricks from Denmark. The Petersen bricks are manufactured in a different way to most UK-made bricks, being charcoal-fired and water-struck (de-moulded using water), and such care manifests itself in the fine texture presented by the end result. One UK supplier was keen to replicate the brick eventually selected, but while they achieved a good result in terms of dimensions, the colour match with the Astley sandstone was less good.

Trial panels of different types of bond and joint width were built in the archway in the south elevation. There was much discussion over whether to use greyer or pinker coloured bricks. Finally, the architects' recommendations of Petersen's 'D36' range was chosen as offering a particularly good colour match to the range of colours in the sandstone walls. The long, thin shape of the bricks were also especially desirable so that the neatest possible junctions could be obtained where the new brickwork has to tie-in up against the old ruinous wall edges. The architects were very keen to avoid visual disjuncture with the inevitably

A significant area of the west wall had to be taken down and rebuilt

The rebuilt merlons and chimneystack bases on the west wall

thicker vertical mortar seams where the new brickwork meets old masonry.

In February 2009, the very plain modern caps of the chimneystacks in the west wall were taken down. The wall below this west elevation turned out to be in a very poor condition, and a substantial area between the two stacks had to be taken down and rebuilt. New oak lintels (very long and very heavy) had to be carefully man-handled onto and along the scaffold to get them into position over the west wall windows. Work was not helped by the first falls of snow!

One exciting discovery came with the removal of the Victorian brick chimneystack in the southwest 1st floor corner. Behind it what looked like a much larger medieval fireplace opening appeared. But as more of the brick was cleared, and infill to the 'fireplace' removed, it became clear that this was a passageway through the west wall into some first floor accommodation that had long since gone – and for which we have no visual evidence in any old prints. It runs at an angle and corresponds with a blocked-up stone archway on the outer face of the west wall. From inside, it looks as if it was first altered into a window before being fully blocked up. This is one of the best areas for remaining plaster and limewash, which has been left as intact as possible.

By the end of April 2009, much, but by no means all of the consolidation had been done. The west wall was rebuilt and repointed, and the brick Tudor stacks rebuilt to the height they had existed as first built– but we chose not to extend them to the taller height shown in old photos. This was consistent with the philosophy of repair adopted by WWM, which was to 'freeze' the historic fabric as it was in 2008, and thus not to rebuild any missing areas or features in old materials, even if the evidence to do so existed.

The surviving arch in the original medieval north, now in the bathroom

The cross wall on the ground floor being demolished

The parapets with all their merlons on the west wall were completed. 'Richard's arch' in the north wall, now standing alone without any wall around it, had its own propping and scaffold 'cage' to keep it standing. By this time, most of the building had disappeared under scaffolding. With the Phase 1a&b money coming to an end, we had to stand Croft down.

Instead, we took on Len Hardy, who had worked for Landmark many years ago, for example repairing Woodsford Castle virtually singlehandedly. Len was keen to work again for Landmark, and as a very experienced stonemason, seemed ideally suited to the ongoing consolidation. Len was assisted throughout the remainder of the project by John Brown, another member of Landmark's direct labour team. And in June 2009 came the glad news that we had been awarded a grant of £1.47 million from the Heritage Lottery Fund. This brought with it not only a huge boost to the fundraising appeal, but also gave a green light to the many access and involvement activities for the local community and beyond, that we had planned as part of the HLF submission but would not have been able to fund without their support. These are described in a separate chapter at the end of this volume.

Later that summer, with some reluctance, we agreed that the ground floor cross wall in the main area had to come down. Although it was well-built and of stone, Richard Morriss confirmed that it was a much later addition and so not primary fabric. The brick entrance lobby in the spine wall, which we had at one time thought might make a good location for the lift, was removed, and in the process, the rather fine remnants of the double moulding on the ground floor entrance court (i.e. north) chimneystack was revealed. Most of it had been cruelly hacked off when such features were unfashionable. A similar detail can be seen on the south side of the same stack.

Above: The double band of decorative moulding discovered on the garden court fireplace
Below: The slate water tank still intact in the old service area, its sides now the table top in the garden court.

Whilst removing the most vulnerable sections of the spine wall, we found evidence of dressed reveals to first floor windows, and also sections of the stone newel stair that we had assumed once filled the vice, which the Victorians had converted into a sort of light-well. A few fragments of encaustic tile were also found, some bearing the Astley arms of the five-pointed flower. Pat Frost fulfilled a watching archaeological brief through much of the time on site, to be on hand for such discoveries.

At the base of the west wall, where the doorway into the more accessible bedroom now is, we unearthed a large, and rather fine, slate Victorian water tank. This had been beautifully made with rebated grooves cut into the base and sides so that it all locked together. Amazingly, it was still completely intact. We very carefully took it apart, and it has been reused as the table top in the garden court.

The scale of the task ahead made it clear that Landmark's direct labour team would need help to complete the 'consolidation' Phase 1 so that we could start the 'new build' Phase 2. On the recommendation of the Arbury Estate we employed a local firm, Buildright assisted by David Dalton, a local bricklayer from Ansley, and good progress was made over the coming months. A bricked-up first floor window in the east elevation was opened up (revealing its plastered reveals), and both first floor east elevation windows in this former room were given new oak lintels for support. The internal stonework to the more northerly of the two windows had long gone, and so in this instance this was carefully rebuilt, to give some degree of stability back to the structure. The pockets where the timber cross beams had once been were filled in slightly recessed, so that their former position can be read.

Much work was done to the parapets above these windows along the east elevation. In the core of this wall we found plenty of moulded window-tracery type stones, possibly from the demolished nave of the

Len Hardy rebuilding the merlons on the east elevation

Buildright join the team and the news comes through of the HLF grant

church. Some of the moulded drip course stones on the east elevation turned out to be just a mess of chicken wire and cement. So these areas were carefully cut out and either old replacement stones fitted, or when none were left, new ones were carved from old blocks. No new stone has been used in Astley's repair at all (except for a few plinth blocks on the west wall chimneystack). Much time was spent in repairing and repointing the spine wall, which enabled us to keep more than was first supposed and indeed allowed for under the Listed Building Consent.

Towards the end of 2009, the curtain wall around the service area where the two new bedrooms now abut was scaffolded and the copings removed so that the wall heads could be consolidated, and the copings put back over a damp proof course. A new oak lintel was put in over the opened up archway in the south elevation, and the brickwork above this rebuilt. On the structural engineer's advice, two 11 metre long Cintec anchors were installed running inwards from the south east corner at first floor level, the maximum length for a Cintec anchor. The rather soft sandstone from which the castle is built, made the diamond drilling easier than might otherwise have been the case.

Whilst all this work was going on, the British Trust for Conservation Volunteers (BTCV, now known as the British Trust for Volunteers) were helping clear the moat banks and shrubbery, thanks to the element of the HLF grant allocated for community involvement. Both areas had become incredibly overgrown, and the BTCV provided invaluable help by providing regular working parties for the remainder of the project.

In July 2009, the village had their annual summer fete, a surprisingly well-attended event for such a small hamlet. Landmark offered regular tours every half hour throughout the day and these proved extremely popular.

Putting in new oak lintels to the garden court windows

Moulded window tracery stones found built into the east elevation and probably from the dismantled nave of St Mary's Church

The Coach House has been something of a Cinderella to the castle, with the latter necessarily taking priority for funding. It could only be our intention to make the Coach House weathertight and sound, which we have achieved, but for now it awaits an internal fit-out and a new use. Early in 2010, and with fundraising still continuing, attention turned to the row of sheds behind the Coach House. Like the castle, these were in very poor condition too, and almost buried under ivy and brambles. A digger was brought it to clear the yard, revealing a rather good brick paved surface that covers about half of the yard. The roof was stripped of its tiles.

February 2010 saw some of the heaviest snow England has had for several years. The whole site was blanketed in deep snow making working conditions almost impossible. The low temperatures also took their toll on some of the lime mortar repointing, even in areas completed many months before, mainly because of the large amounts of moisture still retained by walls exposed to the elements for so many years. Work continued when it could on the sheds including rebuilding the rear wall of at least two bays in Flemish Garden Wall bond; both gables of the Coach House were rebuilt in part or in whole; and many sections of wall-plate had to be replaced. By Spring 2010, reroofing of the sheds was well underway with many rafters and all the battens being renewed.

At the castle, the chimneystack to the curtain wall area (just north of the easy access bathroom) was partly rebuilt as was the arched stone head to the door opposite the metal gate in the curtain wall.

Meanwhile, discussions had continued with WWM on the scheme for the new accommodation, which settled into its final form around April 2010. In particular, there had been much debate about the position and form of the staircase, which had been modelled in various different spots as we

John Brown carving a replacement drip mould stone for the front elevation

Ian McGregor of Buildright repointing the garden court walls

Pumping grout into the two 11m long anchors inserted into the SE corner

Clearing the Coach House yard and finding the brick paving

tried to resolve ancient fabric with functional need, and the space required with what was available both above and below.

With warmer weather returning in May, we carried out a lime training day for volunteers again as part of our HLF involvement package. A demonstration of slaking lime was given, and then the participants were shown how to repoint the old curtain walls. All were able to do areas themselves, and despite some initial concerns, such a good job was made of it that nothing had to be redone. The BTCV, and other corporate working parties from companies such as Network Rail, continued doing sterling work around the wider site under the supervision of our Education Officer, including clearing the old medieval road into the village from the east, known as Dark Lane, that now forms part of one of the waymarked trails around the site.

Although a decision on the Danish brick by Petersen had been taken a while back, we still had to decide on what mortar to be used. WWM had devised a 'quarter lap' bond for the new brick walls to the castle, and they wanted the perpends (the vertical joints between adjacent bricks) to be wider than is conventional. A trial panel was done with some widely differing mortar colours and a selection made. All the large glazed screens in these brick walls were to have precast concrete lintels, and so a colour also had to be chosen for the concrete. Inspired by the greyer stone used for many of the historic windows in the castle, a special blend of white and grey cements was chosen with a mild acid-etched finish to the surface to improve the texture.

The intention was that new brick walls, to be rebuilt on the line of historic walls, should be nearly the original thickness – i.e. up to 2 metres thick in some places, and so a diaphragm construction was devised using extruded clay blocks and LECA (Lightweight Expanded Clay Aggregate) infill to provide insulation. Again a sample section of such a wall was

February 2010 brought heavy snow falls and bitterly cold conditions

The sheds being re-roofed and the end gable rebuilt.

built to check that all the components worked together, including the header bricks that tie the skin back to the clay blocks behind.

June and July 2010 were the final months before the main contract to construct the new accommodation was due to begin. The last bits of consolidation were done, and the fireplace in the entrance court, which has been largely unfilled to create a later and much smaller hearth, was opened up. This revealed the herringbone brickwork on the fireback, and the two niches either side. The last of the jackdaws fledged from their many nesting sites around the castle, including down inside a old flue to the boiler room that was always down to be demolished but got a reprieve until the chicks had flown. Despite all the disturbance of a building site, they are still nesting in various nooks & crannies in 2012, lending a suitably gothic air as they wheel around and squabble in the courts.

Final alterations were made to the bottom of the vice tower to ready it for its new role as a lift shaft. All the ground floor rooms had their floors cleared away in readiness for the new floor slabs to come. Finally, the village fete came round again, with the cheeriest of Morris dancers performing to celebrate the completion of Phase 1.

Volunteers receive training from John Brown on repointing the curtain wall

A trial panel to test different mortar colours with the new brickwork

A sample section of the proposed diaphragm wall showing the use of clay blocks

The conservation officer and English Heritage staff inspecting the sample wall

Phase 2 – construction of the new accommodation

To secure supplies, Landmark pre-ordered all the new bricks for the project, with the first batch arriving in August 2010 just prior to William Anelay Ltd starting work in September. A large site compound was established in the field immediately to the right of the path up to the bridge, with a large office for the site manager and for site meetings etc, a canteen, WC facilities, a store for tools and materials, and finally a large generator as there was no existing electricity supply onsite.

Footings were dug where the new brick diaphragm walls were to be built, for which we had archaeologists on-site carrying out a 'watching brief' in the event that anything of significance should be discovered. The building, now clear of any Phase 1 scaffold, was re-surveyed very accurately so that the setting out of the brickwork would be spot on.

The cellar (under the bathrooms and hallway) appears to have been a bold Victorian intervention in that it was dug out within the walls of the old medieval part of the castle. It had a relatively thin and shallow arched roof, which was showing some cracking, no doubt because of the collapsing stair turret landing on it. So the new structural engineers, Price & Myers, designed a reinforced mesh that was fixed to the brick arch to reinforce this area. The ground floor concrete floor slabs were then poured to provide a firm base off which to erect subsequent scaffolding.

The new brickwork quickly went up once the bricklayers had got their heads around the bond pattern and the various 'rules' imposed by the architects, such as no small bits of brick. Normally, brickwork is just laid in the areas where specified, but the brickwork at Astley has been designed almost down to the level of individual bricks. Freddie Phillipson at WWM produced countless drawings detailing every brick, and

Morris dancers at the July 2010 village fete

The first delivery of new bricks just prior to Phase 2 starting on site

specifying exactly where a cut brick was needed, and what size it should be.

The old steps down to the cellar were no longer safe and so formwork was built for a new set. The pit for the new platform lift (which has a large 'scissor' mechanism under the platform) was carefully dug out at the bottom of the vice. As Astley disappeared under another round of scaffolding, the large 'ladder' beams arrived to span the roof, so that the building could be fully enclosed throughout the winter months.

A well was discovered on the moated site just north of the garderobe tower on the west elevation. The car park behind the Reading Room, which has always been miserably small and thus rather impractical, was extended thanks to the agreement of the Arbury Estate, to provide a much more useful space both for users of the Reading Room and day visitors coming to walk the site.

While Anelays got on with the castle, Landmark's direct labour team started work on the Coach House, having finished the sheds at the back. The gable to the rear extension was in a poor state and had to be taken down and rebuilt. A rather perilous chimneystack which was a later insertion was wisely removed. The upper floor to the gabled extension was found to be a lime-ash floor.

In December the cold weather returned once again, the winter of 2010/11 being a particularly bitter one. The new brickwork is laid in lime mortar which should not be used below 5°C, and so temperatures had to be very carefully monitored. Numerous heaters were required to keep even a modicum of heat within the building. Even the packs of damp bricks had to be thawed out. Inevitably progress slowed.

Early in January, we began to remove the many sycamores that had grown up on both the inner and outer banks of the moat. This has had the

Anelays' site compound on the way up to the moated site

Concrete footings going in for the new diaphragm walls

welcome effect of opening up views both out from, and in to the castle. The BTCV were kept busy with ongoing clearance of the Shrubbery to the north of the castle, as well as creating new paths through this area. Sometimes known as the Rookery on old maps, the planting of this part of the moated site probably dates from the mid 19th century, but had become very overgrown. The straggly old knot garden was also cleared, and Kate Heppell's winning design from the knot garden competition laid out.

Inside the scaffold, which with its lights and heaters glowed mysteriously in the dark evenings, the new blockwork walls continued to rise, capping the exposed ends of historic walls where collapses had occurred since the fire back in 1978. More Cintec ties were employed (Anelays carrying this out themselves as approved contractors for this system) to strengthen and stabilise wall heads, in readiness to take the new brick walls to be built onto them. Drainage was put in, including a new sewage treatment plant towards the north end of the moated site. This produces a highly treated outflow that can be discharged direct to the moat.

As attention turned to rebuilding the north wall of the medieval part of the castle (and now the external wall to the new Landmark), we reluctantly concluded that 'Richard's arch' with all its scaffolding cage, was just too in the way to stay, and so the pragmatic decision was made to take it down. So the arch was very carefully recorded, gently dismantled and set to one side, and then, as the new brickwork arose, it was rebuilt exactly as before.

In February, the first of the new concrete lintels arrived on site manufactured by Cambridge Architectural Precast. It was an exciting day to see these members in reality, after poring over them for so long on WWM's model. To span the width of the new glazed openings, the lintels were long and thus very heavy. The main issue was that no crane of

A new floor slab being laid. A 'bat box' is on the rear wall

Landmark's education officer with a party of schoolchildren

Fully scaffolded with a loading bay, Astley endures yet another cold winter

Heaters were needed to keep frosts at bay and thaw out pallets of bricks

sufficient size to lift them into position could pass under the moat archway. Instead, these lintels had to be lifted from the *outer* bank of the moat – greatly increasing the leverage and thus the size of crane needed. To help reduce their weight, the lintels were designed as 'top hat' lintels - i.e. the top section was left hollow to be filled-in with concrete onsite once they were in position. So much of the lintels you see today are in fact hidden by the brickwork sitting on the rim of the 'top hat'.

The enormous crane duly arrived. So much counterweight was needed to balance the weight of the largest lintel over that distance that the weights had to arrive on a separate lorry. A narrow section of roof was removed and the biggest lintel slowly raised into the air. This lintel is in fact 'T'-shaped as it both spans across the 1st floor screen above the front door, but also returns to the chimneystack that divides the entrance and garden courts. So it also had to be tilted to allow it to fit down through the 'letterbox' slot in the scaffold roof. As the crane extended out to the required length, the alarm bells started to ring in the crane's cab. Sophisticated sensors were picking up that the lintel was in fact heavier than the manufacturers had stated it to be. The crane operators were on the point of having to call the operation off, but there was just enough counterweight available to enable the lintel to be lowered down, levelled, swung through 90° and then placed, with millimetre accuracy, onto its brick piers. All this was filmed by the BBC for the local news, and so it was with enormous relief that all went well in the end.

With the lintels in, the brickwork diaphragm walls could be continued up on top of the lintels to roof beam height. Once this was in place, some of the internal access scaffolding came down, revealing for the first time the scale of the new spaces being enclosed by these walls.

As part of the HLF grant, we took on a young bricklayer called Nathan Grassby under the HLF/EH Bursary Scheme. Anelays were delighted with

Sycamores blocking the views both in & out were felled

The crane for lifting the pre-cast lintels into place

The heaviest T-shaped lintel being lowered through the roof

The lintel was lowered into position with millimetre precision

him and after his training period was over, offered him a job to continue working at Astley. Although they were not able to keep him on after they left site, Landmark has now taken him on as part of the direct labour team, and he will be continuing with the on-going curtain wall repairs working alongside Len Hardy.

Meanwhile, the BTCV were putting in the kissing gates, steps and a small footbridge as part of the interpretative trails around the historic landscape.

Len continued his painstaking work on the Coach House. As the metal plates on the exterior still show, the Coach House is suffering from significant structural problems, because the tie beam of one of the principle trusses had been removed causing the walls to spread. Fire damage had also played its part. There was also a degree of cracking in the cross walls, which had to be remedied, which may have been in part caused by coal-mining subsidence, a problem throughout the area (the church was so badly affected that it had to be completely underpinned in the 1960s0. The Gothick pediment to the Coach House also turned out to be in very poor condition and much of it had to be taken down and rebuilt. Where they were missing, Len carved replacement coping stones.

With the castle brickwork now largely complete, in May 2011 the first of the glulam beams (laminated beams constructed by gluing smaller sections of timber together to form a larger section) arrived. These had to be carefully raised up to ceiling height and then Anelays' joiners had to painstakingly cut out sections for the large metal 'saddle' brackets that tie the principal beams together, as well as cutting out all the numerous mortices to take the smaller joists beams. As everything remains on display, all these joists had to be very accurately cut. Visitors may also notice that the roof is 'upside-down' in the sense that the joists are tenoned into the *bottom* edge of the principal beams rather than the top

Nathan Grassby lays new brickwork at the south end of the garden court

With some scaffolding down, the scale of the new brickwork becomes apparent

edge. At the same time the last of the precast lintels arrived. As all the bricks were a regular shape, WWM devised the use of stepped brickwork to deal with areas which otherwise would have required specially made angled bricks. This has worked well, and is best seen in the areas close to the lift at both ground and first floor level.

Slowly the roofs took shape including over the courts with their giant 'open skylights' in the middle. Once decked out, thick insulation and then a Bauder membrane system (as opposed to the more traditional lead) was fitted on top. The roof is finished off with pebbles over the main building but with a sedum finish over the visible curtain wall bedroom where we wanted something more attractive when looking out of the 1st floor west wall windows.

The ground floor ceiling structure went in next, followed by the studwork partitions to create the internal rooms for bedroom and bathrooms. These frames were then covered in thick cementitious boards which provide both fire resistance and sound-proofing. The final visible surface is large sheets of high quality birch ply, with all the skirtings and beads (which cover the joints between the ply sheets) made from sycamore. With the Bauder roof done, Anelays' lead worker was able to start the lead flashing to all the perimeter parts of the roof and courts.

By August 2011 the M&E (mechanical & electrical) '1st fix' could begin including the laying of the underfloor heating pipes and installation of the lift mechanism.

16 September 2011 was the official contract completion date - but it was of course quite clear by now that there was no chance of achieving this. Problems were also encountered with the supply and installation of the window screens, which arrived late on site and were found to be inadequately constructed and fitted. The double glazed units also had to

The principal glulam beams and joists to the courts start to take shape

The ground floor ceiling going up

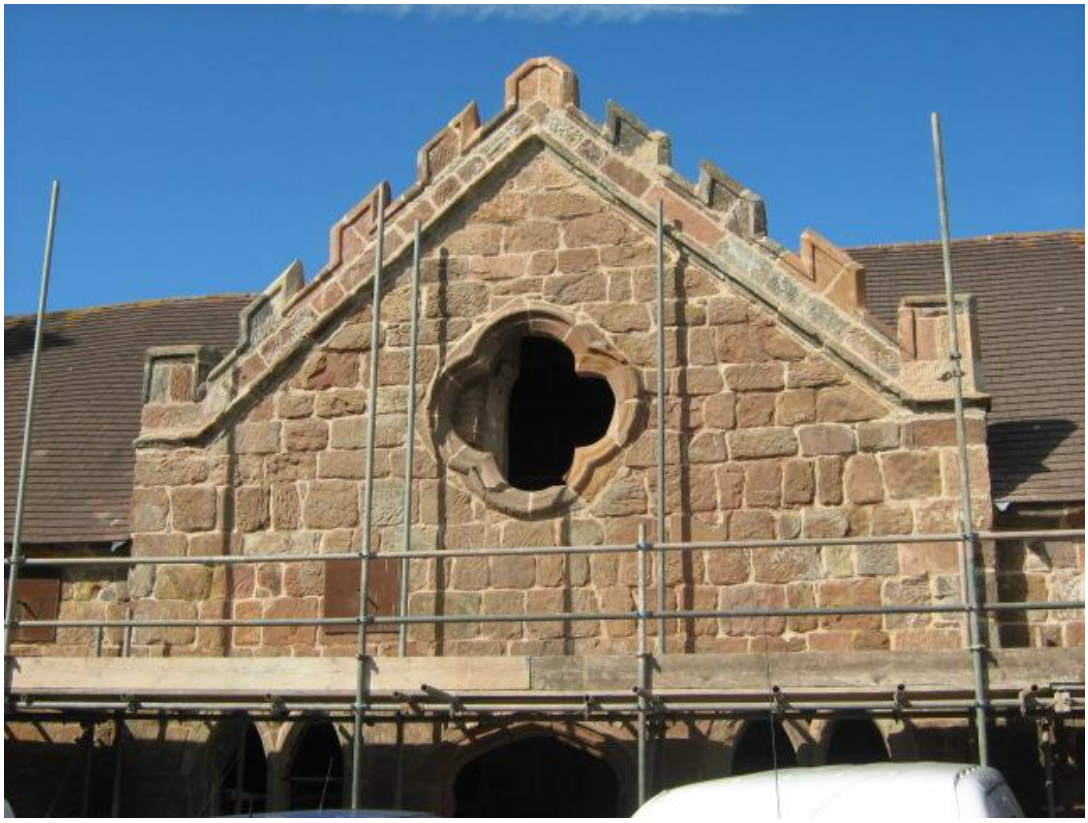
be re-made (by a different company) in the correct colour. All this added up to the substantial delay.

Bricks reclaimed from the areas demolished at the north end during Phase 1, were used to part pave the two courts, with the remaining area being covered in a fine granite gravel, all as specified by WWM. The Air Source Heat Pumps (ASHPs – a renewable energy heating system which extracts heat from the outside air, which is then used for the underfloor heating system and domestic hot water) were installed, as were lightning conductors. Steps were put in the curtain wall outside the north bedroom; and a start was made on the internal tiling – Ruabon tiles for the shower areas (both floors and walls), and San Genis terracotta tiles for the floors and as vertical strips between the timber partitions and the history masonry. Consistent with the architects' attention to detail throughout the building, the setting out of the tiling is all very precise and is carefully designed to line up with other parts of the structure – just as the vertical timber beads on the wall partitions line up with the ceiling joists etc.

With the key repairs to the Coach House now done, Len turned his attention to the curtain walls, concentrating first on the section closest to the south elevation of the castle. Whilst the outer face was in reasonably good condition, the inner face was almost all missing, and so this turned out to be quite a mammoth task of rebuilding, all done with stone salvaged on-site. It is already hard to tell which are the rebuilt areas.

By November the en-suite bathroom was nearly complete. Outside, the pre-cast concrete copings for the brick wall heads had finally arrived and were fitted. The last job to be completed before the Christmas shut-down was the laying of the oak parquet floors to the ground floor bedrooms.

Gravel ballast to the upper roof laid over an insulated membrane system



Len Hardy's rebuilding of the front of the Coach House nearing completion

Underfloor heating pipes going in

The scissor mechanism for the lift being lowered into its pit

2012

As the new year began, the oak engineered boards were laid on the first floor, finished as specified by WWM with a 'gutter' detail to give a crisp edge to the new flooring. This, and the parquet floors on the ground floor, are all finished with the Scandinavian-type system of lye and then white oil.

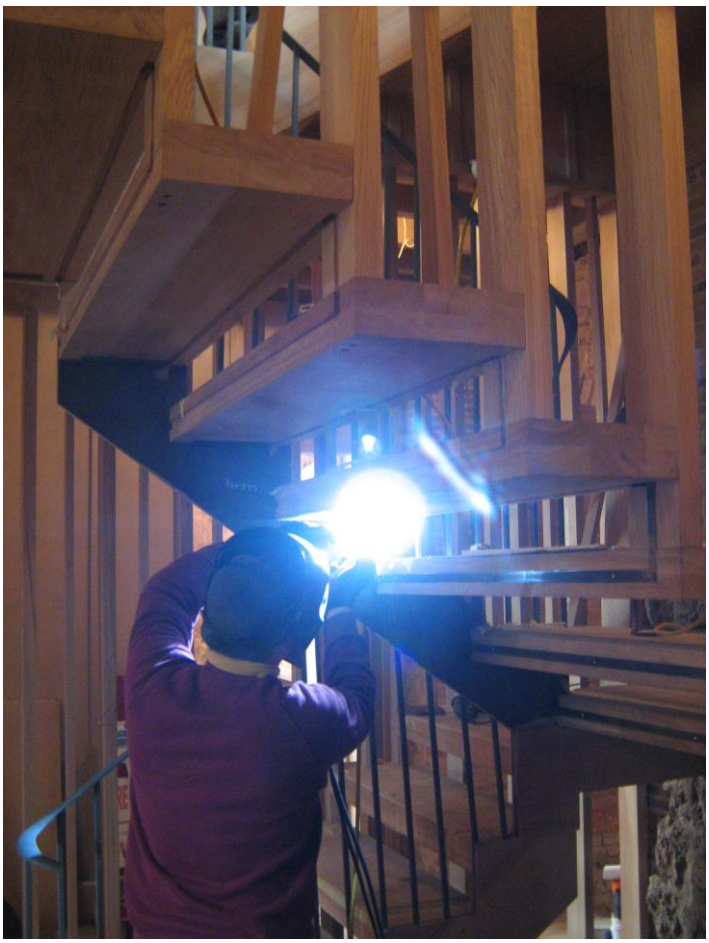
In February the internal doors arrived. These are faced with birch veneer (to match the timber panelling) that had to be very carefully selected to achieve the desired standard. The ironmongery for the doors was also specially chosen by the architects.

There had been much discussion about the woodstove, needed because the fireplace on the west wall was simply not in the right place to become a working fire again, given the multiple roles this large first floor room has to play. Also the fireplace's lintel is now too low, since it relates to a floor that used to be at a lower level than the current one. Having concluded that a stove was needed, we wanted something that was in keeping with the simple modern interior; was robust and straightforward to use; and was of sufficient size and scale not to look dwarfed by such a large room. It also of course needed a sufficiently large heat output to make sure this room stays comfortably warm even in really cold weather. Lots of different makes and models were considered, and chosen ones even rejected once seen in the flesh. In the end it was a Charnwood Cove 3 that best met all these criteria.

In March, the staircase finally arrived. Again, there had been much discussion about its position and design, the former placing various constraints on the latter. It is a hybrid' stair in that the central spine is in steel, over-clad with timber. There are also steel 'brackets' which carry (at least in part) the load on the steps.

Grouting up the tiles to the kitchen niche

Fitting the double-glazed units using a crane with suckers



Welding the metal hangers for the stair treads into position

Fixing the last of the oak cladding to the bedroom and bathroom walls

In March, the correct glazing finally arrived and could be fitted, replacing temporary sheets of polycarbonate. The cellar doors were fitted and the oak boarding done to the curtain wall bedrooms. The remaining area of the coach house yard was cleared of the multiple pallets of salvaged bricks and stone (now in the sheds) and dug out to receive its stone fill.

Anelays were by now close to completing. The site compound was cleared; lead work to the window cills done, and when the external doors finally arrived on site, these were hung, glazed and given their door furniture. The contractors left site at the end of April.

Two areas of the curtain wall on the east side had completely collapsed

Stone salvaged from the collapse is used to rebuild the missing sections

Curtain wall

Rather late in the day, we finally got under way with a new contractor called Midland Conservation Ltd, on rebuilding and repairing those sections of the curtain walls not already done by Len. (We had discussed with Anelays the possibility of them carrying out this work but they couldn't make their costs match our budget.)

Many areas of the curtain wall were in a very poor condition, and two areas in the south-east zone had completely collapsed down into the moat. The team from Midland Conservation have carefully rebuilt these areas matching as best they can with the salvaged stone available, the style of the adjacent stonework. Searching through the nettles on the outer bank to find that right-sized piece of stone, and then have to manhandle it up and into position, was rarely easy. The tops of the walls have been finished off with a 'soft' capping using a specially chosen turf that is relatively drought resistant and should look attractive.

The bridge has been extensively repointed, with replacement stones fitted to the underside of the arch, where they had dropped out (the arch had spread slightly). The parapets have been repaired, and any stones and copings obviously belonging to these walls have been put back into position, but no attempt has been made to remake new coping stones where they have disappeared.

The gateway arch had been horribly repointed with projecting cementitious ribbon pointing, and so this has been chopped out and redone properly in lime.

There is a curious small cave-like feature in the southern section of the curtain wall, to the right of the bridge. What it was for, no one seems to know. We have left a 'window' into it so animals (bats?) can still use it.

The rebuilt curtain wall close to its finished height

The curtain wall at the far north end of the moated site next to the old steps which led to a bridge over the moat to get to the Shrubbery

This work was grant aided again with help from English Heritage, although Len and Nathan will continue working on repairing any remaining sections still to be done, once the Landmark is up & running.

The Moat

It has, not surprisingly, been a long-standing ambition to flood the moat again. In a wet winter there is nearly, but not quite, a complete ring of water, but in the summer only the north-east quadrant remains wet. This is for a variety of reasons – a) it is quite silted up (over 2m deep in places); b) water table levels have dropped over time; and c) rabbits and badgers burrowing into the banks has probably not helped. The simplest and cheapest solution might seem to be to dig out all the silt and see what happens to the water table - but the silt may be archaeologically sensitive.

The other problem is, assuming that ground water alone is insufficient, where a water supply to fill up the moat might come from. We have put considerable effort, listening too to local anecdote, to try to trace the ancient water systems on the estate – there are various brick built culverts and shafts apparent in the landscape around the moated site. Understandably, the Arbury Estate is not keen for us to take water out of Astley Pool, as the fishing syndicate that lease it already have concerns about water levels there. There is a deep brick shaft near the outer bank of the moat that has now been investigated, and does contain at least some water. Whether there is sufficient to put in the moat is not yet known. It would need a relatively powerful pump and an electricity supply to this point to make it possible.

For all these reasons, and given the pressure on budgets, we have had to decide to leave things as they are for now – but hope we may be able to return to the moat at later date.

Mark Noble of Geotechnical prepares to go down the well
15 metres down there was a blockage but water was discovered below this.
The old pump mechanism is visible

This latest, and finally successful, project at Astley Castle engrossed the entire team at Landmark for seven years, and its architects and contractors for much of that period too. The site represented an enormous challenge but once the leap of imagination had been taken to cut, this time, the imperatives of conventional restoration, it has been an invigorating and enriching process. The project has worked in dialogue with the past, not in fear or distaste or awe of it, but with quiet confidence that the aesthetics of our own period also have something to offer in conserving an ancient structure. The 'Astley solution' will not be right for many sites, but our pleasure in the result emboldens us to think that this should not be the last Landmark where contemporary design meets ancient masonry.

Access and involvement at Astley Castle

It is an enormous benefit to a Heritage Lottery Fund grant that it comes with a proportion specifically earmarked to ensure that as many people as possible, of all ages and backgrounds, learn about and become involved with the project. As referred to above, this certainly happened at Astley Castle, masterminded and steered by Landmark's Education Officer.

Two tangible reminders of this programme will remain in the long term: the knot garden on the moated site, and the interpreted public trail around the wider landscape (to which Landmark has enabled access through a lease from the Arbury Estate).

Schools' Project

160 children from four local schools visited Astley Castle during its restoration and participated in a project that brought together several strands of the National Curriculum.

The children visited the site and witnessed and recorded the restoration work at different stages, an exciting and unlooked for experience for almost all. They watched craftsmen at work and chatted to some of the builders, giving them an insight into the different jobs involved with saving a historic building. Some groups visited when the archaeologists were in residence and were able to handle objects found during their excavations.

The children also had their own tour of St Mary's Church, by happy coincidence at the same time as a completely separate project was underway to preserve the early 17th century wall paintings. When the weather was fine weather, groups explored the extensive grounds, learning about the viewing mound and the medieval fish ponds.

Croft Primary School (top) and Milby School don their hard hats and high vis jackets to discuss the scheme with the contractors and get down to their own hard work onsite.

The site visit was followed up with two days of activities back in the classroom. Drawings made on site were turned into beautiful watercolour impressions, whilst children also shared their ideas for an interpretation trail to guide visitors around the grounds.

Artists In Residence

Access to the site during works was given to various different artists and groups to record their own personal impressions. The Astley Art Club worked with local artist and tutor Joe Rice during the consolidation and repair stage and their results were exhibited at Bedworth Arts Centre in April 2010.

Community Exhibitions and Talks

Landmark's Historian and Education Officer both gave numerous talks on Astley Castle to local history and civic groups throughout the project, and many were also given private tours of the site by staff members.

In August 2010 an exhibition at Hinckley Library featured work created by local schools with artist Gary Bedford. Gary worked with the schools over a week long project and explored the links between Astley Castle and the wider area, in particular the War of the Roses and Lady Jane Grey. Further artwork was created with the Landmark Trust's Education Officer for another exhibition at Nuneaton Museum and Gallery, exploring Astley's links with local writer George Eliot.

Open Days

The site was open to the general public from time to time, to coincide local community events like the Astley Village fete and the May Day Art Exhibition. Now the project is completed there will be a regular programme of open days and activities. Information about these can be found on our website or obtained from the Booking Office.

Volunteers clear the holloway, Dark Lane (above) and take a well earned break (below).

Volunteers

Much of the work to clear self-sown trees, restore pathways and create new footpaths was done by British Trust for Conservation Volunteers, who worked tirelessly in all weathers. They made a huge contribution to the overall and ongoing maintenance of the natural habitats around the castle, and must count as part of the overall project team. Their work made old footpaths accessible again and created the new trail around the site – so enabling and encouraging the general public to experience the site for the first time in over 30 years. The interpretation boards on the site were designed with input from the local school children on the type of content they wanted to see.

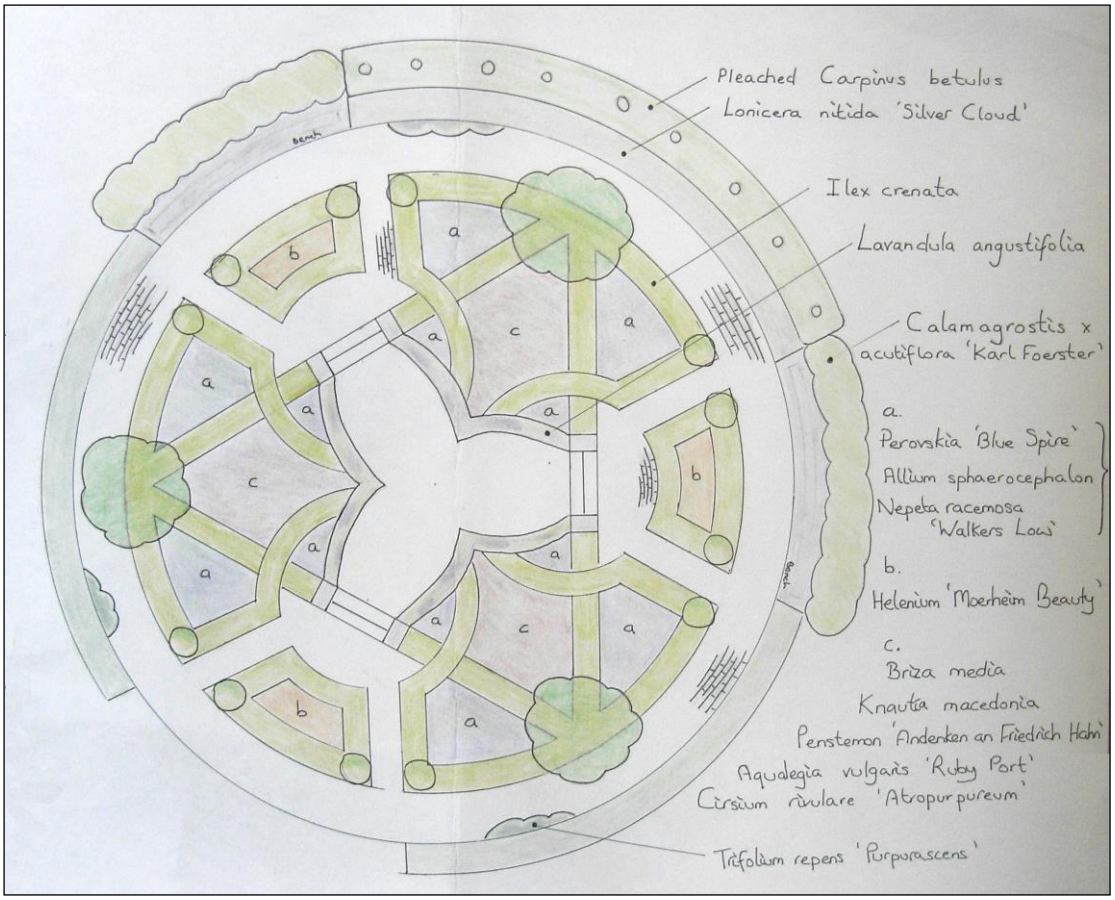
Corporate groups have also contributed many hours of enthusiastic work. A group from Network Rail and three groups from National Grid have helped out on site. They were particularly involved with the clearing of the old knot garden, and the laying out and creation of the new one.

Guide book

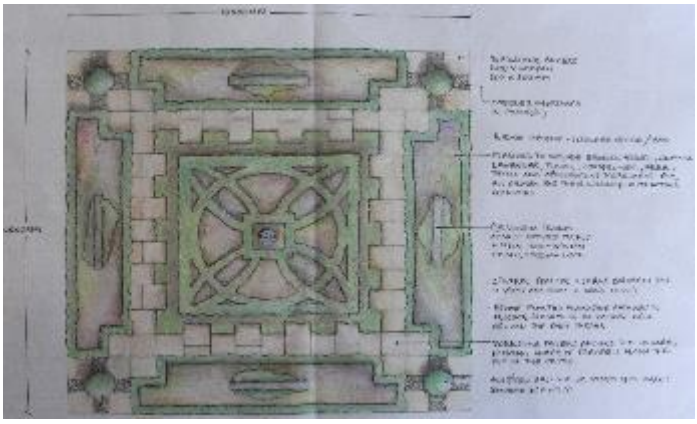
The final element to the HLF Access & Involvement grant was the production of a guide book for the castle and site.

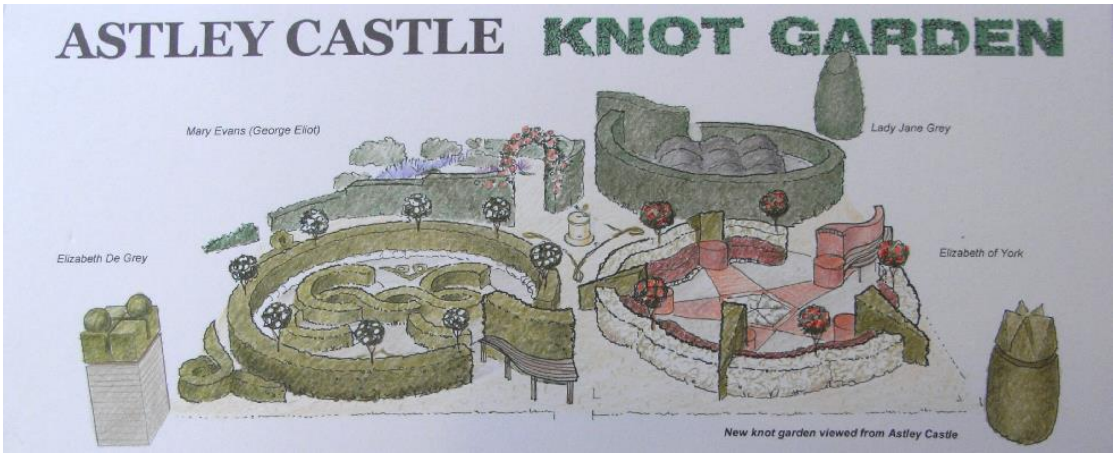
John Brown runs a day on lime repointing for volunteers and Landmark Friends, making a real contribution to the repointing of the curtain wall.

BTCV and Network Rail grubbing out the old knot garden



The overall winning knot garden design by Kate Heppell.





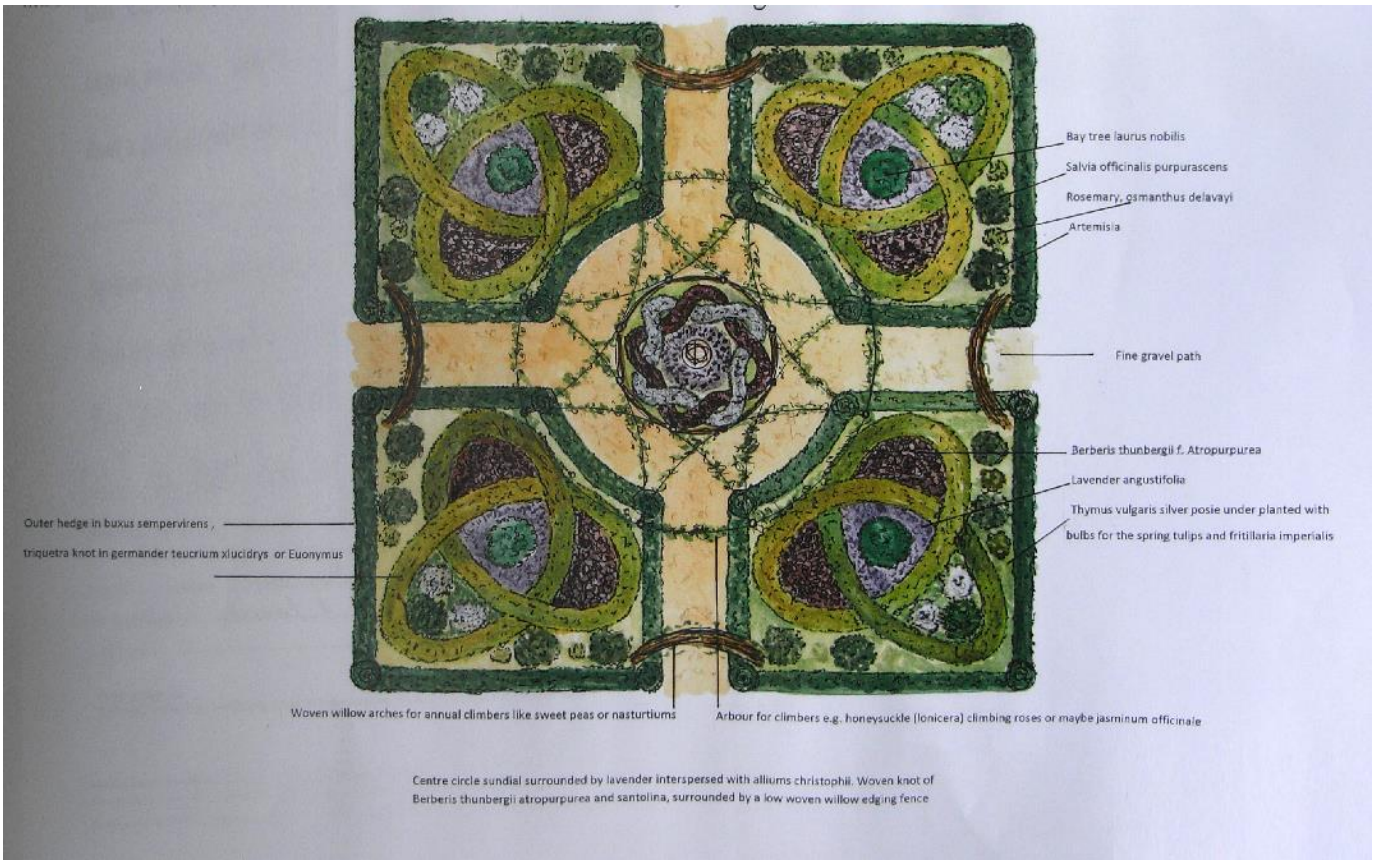
Highly Commended adult entries (clockwise from top left) by Alexandra Freeman, Justine Dobson, Louise Allen and Stephen Clinch & Julie Holt.

The Knot Garden

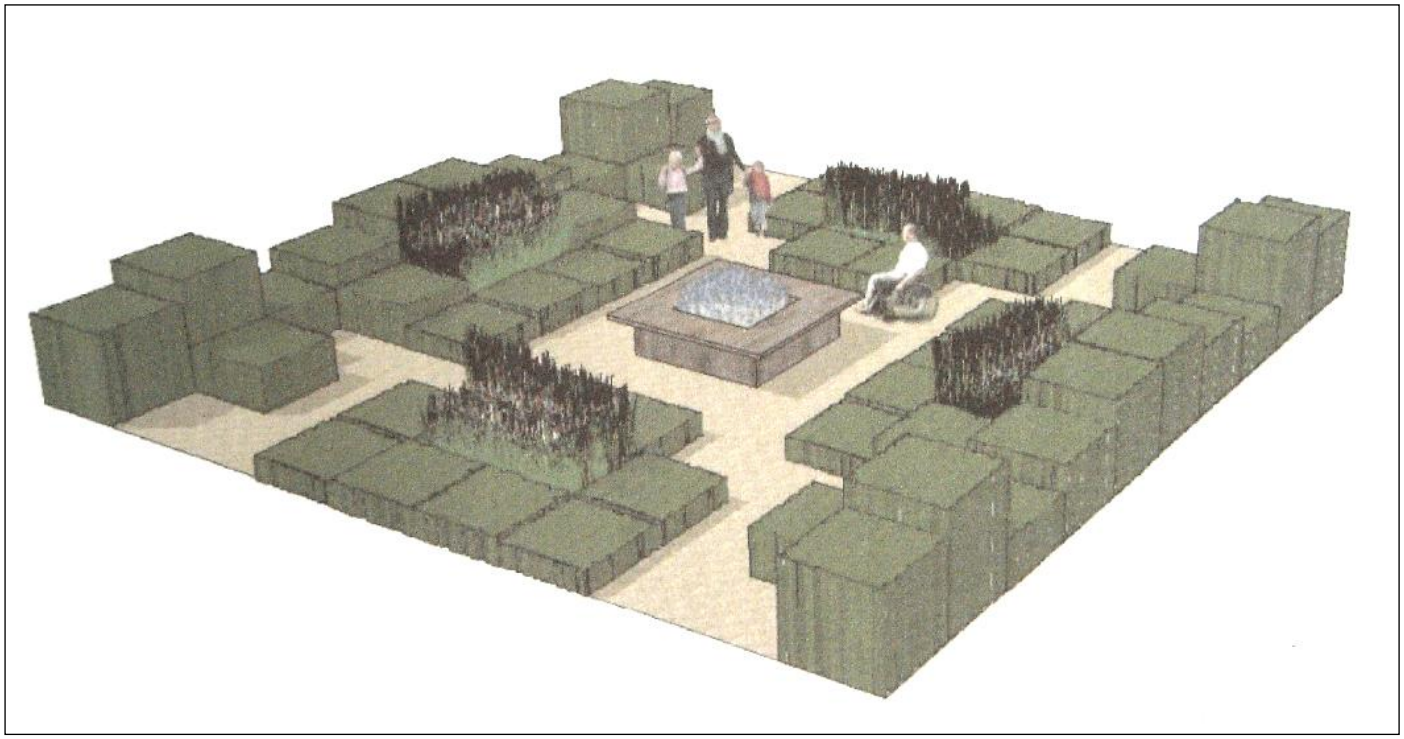
The 1690's estate map (see Vol I of this album) suggests evidence of a formal feature on the moated site in the late 17th century, which may well have been established long before this. All the early photos also show a knot garden, and the straggly remnants of this were being faithfully mown round by a local villager even in 2005. We were reviving the castle; we felt too that it would be appropriate to create a knot garden for the 21st century.

In May 2010, we therefore launched a competition to design this new knot garden, open to adults, students and children in separate classes. The briefing pack was designed as an educational resource in its own right, with information on the history and development of knot gardens, and advice on how to create one and which plants might be used. Over 100 entries were received, and were judged by Martin Drury (then Chairman of Landmark's Trustees), Lady Daventry and garden historian Caroline Holmes. A design by Kate Heppell was unanimously chosen as overall winner. The judges felt that it "stood out as a contemporary design yet one that is highly symbolic of both the past and the future. The views both towards and away from the castle have been carefully considered. It offers a range of both practical and interesting spaces and a variety of textures and scents. Kate has also offered an additional solution to meet the needs of wheelchair users".

Kate's tripartite ground plan was inspired by Astley's link with the three Queens of England, reflected by three wrought iron arches, three benches and triangular paths. The arches incorporate the flowers associated with each queen – a pendant worn by Elizabeth Woodville in her famous portrait, a rose for Elizabeth of York and a gilly flower (a highly scented pink or carnation) for Lady Jane Grey (her husband Guildford Dudley's emblem).



Student Winner Jenny Cairn's design (above) and Highly Commended, Rhoda Maw (below).

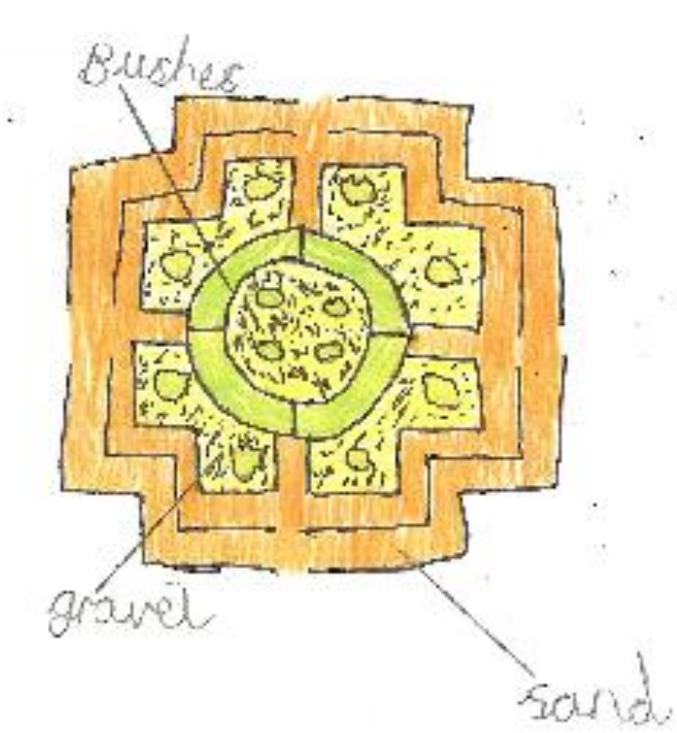


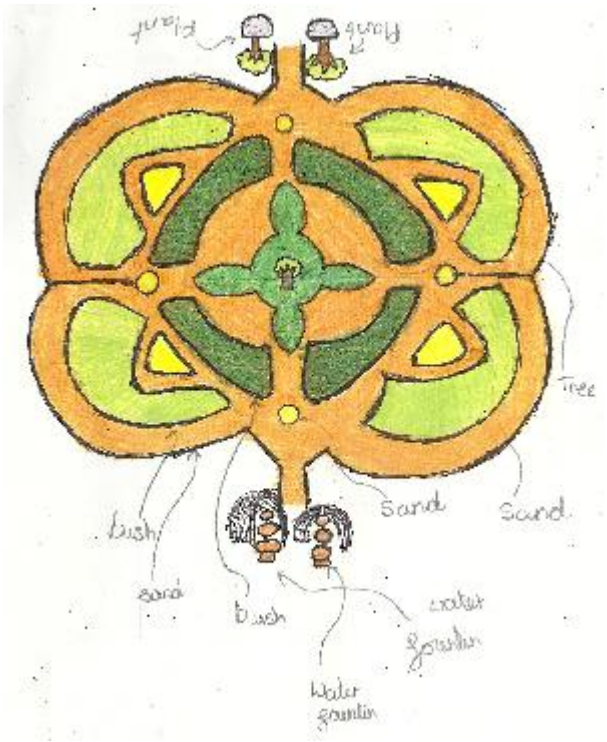
Work began in autumn 2010 to clear the existing old and tired hedges, and level the ground ready for the new design.

The new garden was then created in two phases. First, its structure was laid out in the autumn of 2010. Three local volunteers marked out and edged the geometric design. The first phase of planting was in spring 2011, with another phase in autumn 2011. The final part of the process has been to lay the pathways and mulch the planted areas. At least 80 individual volunteers have contributed to the making of this new garden.

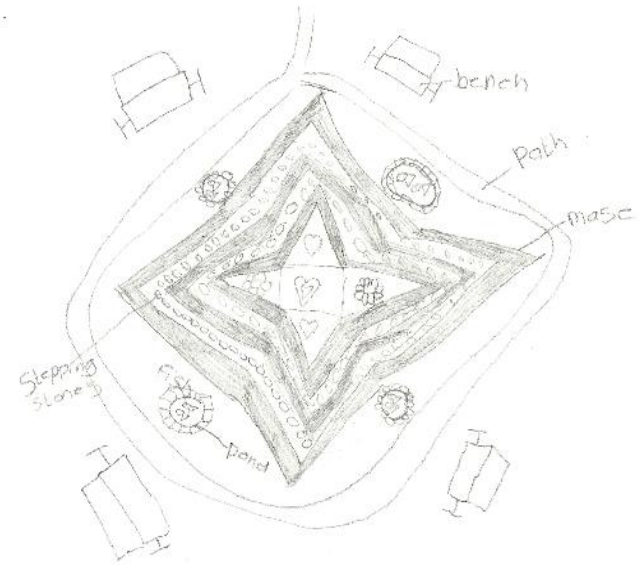
The benches are made of ancient oak timbers salvaged from the castle, for which there was no other use, by local craftsman Peter Appleton. The archways were made by local blacksmith David Salt. With mounting frustration, the planting scheme had to be revised several times, due to the all-out guerrilla warfare waged on it by the local rabbits, which proved depressingly omnivorous, especially in winter, even of plant species normally not to their taste. The plants we are hoping will survive, at time of writing, include Bergenia cordifolia, Helleborus orientalis, Taxus baccata, Santolina chamaecyparissus, Lavandula angustifolia 'Hidcote', Ilex crenata 'Convexa', Buxus sempervirens, Carpinus betulus, Lonicera nitida, Cornus sanguinea.

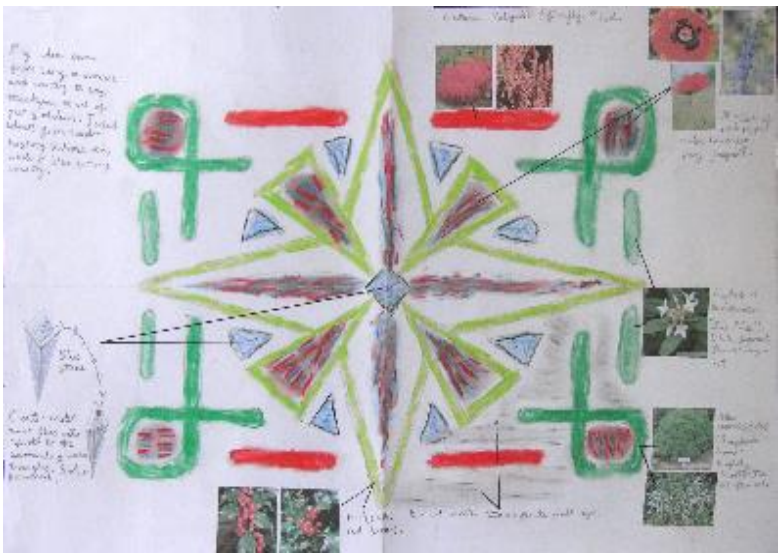
The knot garden will be maintained in part by volunteers. Like the new accommodation in the castle, it is intended as the equivalent horticultural intervention to the new accommodation in the castle, a place to contemplate the ongoing dialogue between past, present and future.

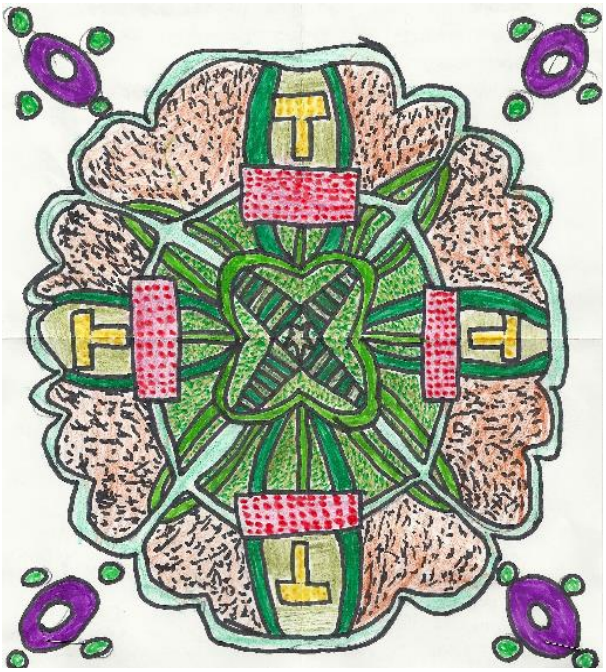


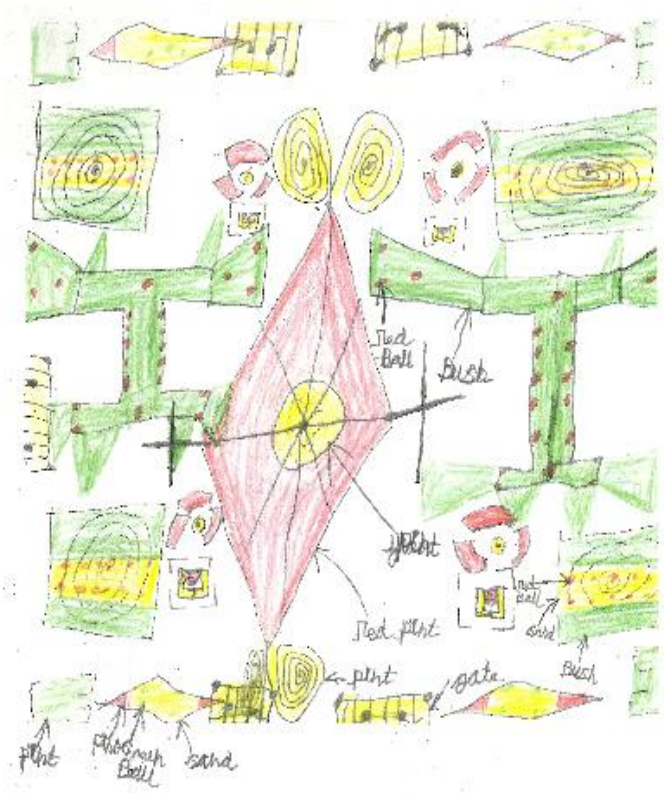


The winning entries in the Under 12s Class, by Cameron and Goran of St James School.









A selection of Highly Commended entries.

Knot garden competition winner Kate Heppell and Landmark's Education Officer watch as a volunteer plants a hornbeam in the emerging garden.

Blacksmith David Salt installing the arches he made for the knot garden.