INHABITING THE RUIN

Work at Astley Castle

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By the time we first visited in early 2007, Astley Castle was already in an advanced state of decay. Fire and 30 years of freeze-thaw had reduced it to a ragged masonry shell. Like a rotten tooth, its outer faces continued to resist, while the inner core crumbled. Behind the intricate silhouette and perforations of its outer walls, the inner cell divisions slowly merged with the piles of stones between them. The occasional charred timber survived from the initial catastrophe, while a clutter of twisted scaffold poles showed that attempts to delay decline had been casually brushed aside. From inside, walking between the remnants, it was hard to perceive any order; it seemed, rather, a chaos of pieces and forms. From the fields around, with its tall west front rising out of an encircling wall and grass mound, it was a ruin in the grand tradition.

As these contrasting experiences suggest, ruin is an ambivalent figure. The ruin represents disintegration and distillation: it is both anti-architecture and pure architecture. Decay strips away all that is superficial or ornamental, leaving only a structure in fragile equilibrium. The ruin internalises the complex order of natural forces, juxtaposing the irregular geometries of collapse with the rectilinear ones of construction. Abandonment blurs boundaries, as a room is furnished with plants, and what at first sight

The ruin after clearance of rubble and other debris

seems a garden reveals its decorative tiled floor; thresholds become ever more porous as doorways become wide gashes. Small traces of habitation, stubborn patches of plaster or flashes of colour evoke the comforts of previous inhabitants, now passed. Ruin has become more or less constant in the imagery of our anxious culture.[1] Sensitised by these images and anxieties, we took it upon ourselves to retain Astley's ambivalent mix of pathos and resistance.

House

If ruination distils a building to an architectural essence, what evaporates in the process is precisely its humanity. Ruins are measureless, porous, hard and damp: their emotional power grows proportionately as human scale, subdivision, containment and comfort are erased. In many ways, therefore, the house is the polar opposite of the ruin. As critic Anthony Vidler writes, the ruin is unhomely, uncanny.[2]

To place a house inside a ruin, therefore, threatens the essence of each. Two opposite dangers present themselves: the domesticated ruin, which has lost its emotional charge; or the uncomfortable, unsettling house. This was the tightrope we had to walk in making Astley Castle fit for habitation.

This challenge was eased by the ambitions the Landmark Trust set for the project and by the properties of the remaining structure. Firstly, the accommodation to be provided was modest compared to the extent of the castle, about one third of its area; secondly, this was a holiday house (for visitors with a passion for history) not a permanent residence, therefore conventional expectations of both comfort and privacy were not overriding; thirdly, about half the walls had fallen away (or conversely, half were still in place), meaning that neither the historical structure nor the new construction would dominate the whole.

Maintaining the ruin and inhabiting the core

We have not restored Astley Castle; we have, rather, maintained the ruin and inhabited its core. What is the difference? If restoration implies a form of completion, a return to a past wholeness, we have left the castle incomplete. We have left the huge gaps that we found in the fabric rather than fill them, treating the subtractions of the decades of decay with the same seriousness as the additions from centuries of construction. Where we have had to build, we have done so with economical contemporary materials, accepting the surface discontinuities that follow.

We have embraced the unusual sense of enclosure, of scale, material and light, present in the ruin. We have maintained the deep discipline which underlies the majority of ruins, in which the durable masonry shell is independent of its combustible carpentry infill. New insertions are not pure geometric figures, but rather interlock with existing fabric and with other new work. In short, we have avoided completing or domesticating the remains, leaving the house at Astley open-ended and somewhat unsettling.

Looking for a constructive understanding of the ruin in our hands, rather than the morbid Romantic "worship of ashes", we drew on the sophisticated modernist interpretation of Le Corbusier. In a series of projects including the Pavillon de l'Esprit Nouveau – in which a cubic house volume is occupied and disrupted by a tree growing out of its terrace and through its roof – the garden and living spaces share the same enclosure, and are connected through gaping wall openings.

With the disproportion between the area required for the new house and the area at our disposal, and surrounded by an ancient landscape of abandoned gardens shading into fields, and of ponds and lakes, we chose three defining tactics: to inhabit the oldest core of the castle, the early medieval fortified manor, a two storey ectangular construction with walls two metres deep; to treat the rooms of the ruin as a roofed core surrounded

Interior before the fire, archive photo

by a series of partially-roofed external courts; and to make it an “inverted house”, with bedrooms on the ground floor and the living spaces on the first.

Continuity

Our work at Astley is a reflection on time in architecture, an assertion of continuity and change. It is a rejection of the ideas of “return” and “rupture” that condition too much action on buildings of the past: “return” in the form of restoration, and “rupture” in the form of self-consciously discontinuous new construction. As we wrote in our competition submission:

> “These positions share the belief that history is past. By contrast, we are convinced that history is not what happened to other people, but a dimension of human nature, and a fundamental part of our working conditions, even in the modern age.”

It was, I suppose, this belief in continuity that led us to graft the structure of the new house directly onto the old. The early medieval fortified manor remained an immensely strong presence in the landscape, and was still legible as the core from which the castle had grown: it seemed natural to re-establish its importance by making

it the heart of the new house, enjoying the views from its dominant position. In conversation with our structural engineer, David Derby of Price & Myers, we quickly became aware of the practical advantages of our "graft": the structure of the new house would bind together the freestanding walls of the old castle; the new roof would protect new and old alike; the new house would bear on the existing foundations, using the capacity already there. The thought of building the new house completely detached from the ruin did not cross our minds, though there were several such schemes in the competition by which we were selected. Imagine having to stabilise the ruin as a stand-alone structure, to cap all its walls, to dig new foundations in the Scheduled Ancient Monument! Why? In the name of preservation, or of a self-sufficient modernity detached from history?

Our "full contact" approach raised numerous questions, of course. What materials to patch with, how to land them on the existing walls? Our design for the initial six week competition established the spatial strategy that we have delivered five years later (maintaining the ruin, inhabiting the core, inverting the house). The tactics we proposed at the time, of tile brick edgings, reinforced concrete roof frame and wood windows and linings have all evolved, both in themselves and in relation to each other, as we increasingly understood the nature of

the "host" building we were grafting onto. These tactical judgements required a close understanding of the existing fabric. We had to look with great care at the existing walls, and in doing so, our perception of what we were dealing with changed fundamentally.

Cell structure and tectonics

Under close scrutiny, a singular "ruin" revealed itself as multiple remains. The logic and illogic of the castle's incremental expansion over the centuries became apparent to us through recording and interpretation, through simplification in physical models, through the clearance of the ruin of both rubble and unsound structure, and through the "call and response" of strategic and detailed design. Our interpretation of the castle's growth pattern brought home its insistent cellular logic. It had started as a single, rectangular structure, somewhat in the manner of a keep, with a spiral stair in its northeast corner. Rooms were added in the 15th, 16th and 17th centuries until it formed a cluster of four stone volumes grouped around the spiral stair. Each of the masonry "cells" was built in two-storey high masonry construction, which because of the wall thickness was independent of the carpentry for its stability – a wise and widespread strategy when fires were common. Later constructions

proved more fragile: the mid-17th century jettied timber-framed wing, a long gallery on the north side, was reduced by fire and rain to a jumble of timbers, while the slender 19th century walls were unable to survive without the bracing of their roofs and floors. The fundamental lesson we absorbed from this exercise was the need to follow the existing cellular structure closely, only adding new masonry where walls had previously existed. On this basis, we restricted the concrete structure to the wall lines, moving from a frame bearing directly onto the stone walls to lintels bearing on new edgings.

The junction of the 15th century wing with the original castle core, where the two oldest parts met in a "T", should arguably have been one of the stronger parts of the castle – it was the meeting of two thick masonry walls which should therefore buttress each other. Instead, it proved one of the weakest, both walls crumbling to form a hollow at the heart of the castle. Not understanding the deep structure of the architecture, our first response, in the design competition, was to propose the demolition of what had become a free-standing chimney stack: its removal would create a single large walled courtyard beside the new house. Once we understood its position in the sequence of the castle's construction and structure, we knew we had to keep it – yet the chimney stack stood bang in the middle of the large new window

opening formed by the collapse of the medieval wall. The clue to its resolution came from studying the work of another modern ruin artist – Gordon Matta-Clark. His work, consisting mainly of openings cut with a chainsaw into derelict buildings, offers many examples of cutting out the corners, serving simultaneously as an assault on the strength of architectural compartments, and a unification of previously separated spaces into a newly perceptible whole. By reforming the walls around and over the opening, aided by a giant concrete lintel cast in a "T" form, we focused the energies of destruction in one moment, at precisely the point where the different ages of the castle met. The resulting opening draws early medieval, 15th and 17th century rooms into a single experience, with this encounter framed by the 21st century construction in brick and concrete.

Accepting both the cellular masonry structure and the three-dimensional gashes within it led us to a settled and clear position on the respective roles of the masonry and carpentry. Broadly, the crumbling, toppling ancient masonry walls are internally stabilised and strengthened by resin anchors, are tied to each other by new concrete lintels and are edged, capped and buttressed by new brickwork. In other words, the masonry is stabilised by new masonry work alone and new carpentry is a relatively lightweight and independent insert into this shell. The masonry

New brickwork and concrete lintel, binding and buttressing the remaining stone walls

additions maintain the unsettling scale, while the carpentry brings subdivision, human scale, warmth and tactility to the interior: the masonry follows the character of the ruin, while the carpentry and joinery establish its habitability. The tightrope act of the project depends on both tension and complementarity between these primary elements.

Masonry: edging and infilling

Covering and protecting the exposed edges of the stone walls and their rubble cores was essential to prevent further deterioration. Seeing old tile brick infill to a damaged buttress on the neighbouring St Mary's church had already prompted us in this direction at competition stage. An extensive trawl of suppliers led us to the Danish Petersen brick selected, which is 37 mm thick. Tests on site with varying sizes showed that the thinner bricks fitted the random edge of the ruined stonework much more closely. The charcoal-fired bricks echo the reds and greens of the sandstone and limestone, achieving a close tonal and colour harmony at the same time as their texture distinguishes them clearly.

The new brickwork walls are built to the full depth of the existing stone walls, directly onto them. The inner and outer skins, which are up to 1.8 metres apart, are bonded together by

diaphragms of clay block every 900mm, tied in by a header every fourth course of brickwork. The brickwork is laid in lime mortar in a quarter-lap bond, partly to accommodate these headers, partly to soften the rhythm of the bricks, meeting the broken stonework edge gently, not abruptly. The window openings in the south wall and spine wall (between the new house and courtyards) are simple in the extreme, two storey high cuts in which the brickwork approximates and regularises the gashes formed by the castle's decay. The small module of the brick coursing also disrupts any easy or domestic reading of their scale.

The reinforced concrete lintels were prefabricated from templates taken on site. They are boot lintels with an etched finish and an in-situ structural core, enabling them to be craned into place from beyond the moat despite their large size. The visible "boot" is three courses high, with the full structural depth concealed behind the brickwork, suppressing their muscularity behind a light, taut appearance.

Most of the north wall of the medieval castle had collapsed, giving us the opportunity to use some of its depth to accommodate the bathrooms and kitchen, with reduced impact on the interior. Retention of the medieval shaft of the spiral stair, to accommodate the new platform lift, squeezed this space further. Finding ourselves with the need to angle walls, and

with the bricks already ordered with just one special, we were obliged to improvise, and developed a stepped reveal with a touch of the brick Gothic. While we have edged existing walls in relatively deadpan manner, the creation of a wall full of domestic scaled openings pushed us to challenge their mundane scale into figurative forms. James Gowan talks eloquently of the difficulty of integrating bathroom and kitchen windows in a considered composition in social housing;[3] here, the stakes were higher, since the existing windows are exceptionally large. The bathroom windows are reduced to minimal sizes (the smallest is 450×450mm), placed flush with the outer face of the brickwork with their embrasures widening out internally to distribute the light more widely. The low kitchen niche on the first floor is asymmetric, narrowing on the right as it goes up, in the manner of a medieval fireplace. This is achieved through a series of lintels "corbelling" inwards (in fact, they work in torsion, in the same manner as a cantilever staircase.) This integrates the mundane scale of the kitchen units and the long, low niche into the masonry order of the room.

The idiom of stepped reveals served us further in edging existing window and door openings whose surrounds were unstable and uneven. In each case, the rough stone and brick surrounds could be brought to a relatively crisp edge – enough to fit carpentry or joinery to – through

Roof and first floor in laminated timber, under construction

the use of a mix of new and reclaimed bricks, enabling us to patch into existing coursing.

Carpentry

Once we had rejected the precast concrete primary roof structure of the competition scheme, the carpentry was straightforwardly difficult. With 7m spans, sawn timber was never a possibility, so we focused on laminated timber. After considering oak and sweet chestnut, both beautiful but too expensive, pine remained as the default option, though its paleness and cool colour both appealed as a neutral background to the rich reds of the stone and brick walls. A prefabricated cassette system would in fact have worked out cheaper, but the resulting flat soffits felt as if they would offer little tolerance to the uneven walls. Both the first floor and the roof have been executed with the primary structure in upstand, that is, with their underside level with the joists. This makes the ceiling tauter, less heavy in feel, and avoids the knock-ons of pushing the roof higher in relation to existing stone walls.Under constant pressure of costs, we were unsentimental about the need to work with standard materials. Until they were installed, the roofs over the courts were always vulnerable to being cut: in fact the project was tendered with two

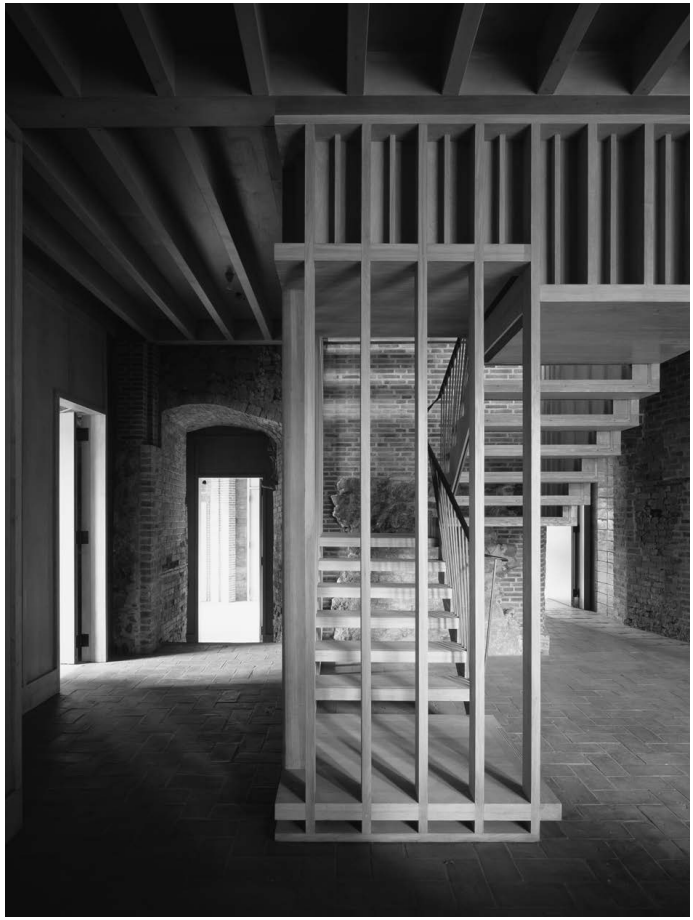
alternatives, with and without the court roofs. They protect the inner faces of the walls from the weather, and therefore from further deterioration; they also brace freestanding walls that would otherwise be unsupported (or would require hidden reinforcement). Crucially, they make the retained 15th and 17th century wings feel like rooms, with balance and focus. There was considerable anxiety at the Landmark Trust about the daylight and sunlight that would penetrate into the courts, but a session at University College London's artificial sky gave us daylight measurements that were sufficient to give reassurance. This exercise also revealed to us that the sun would enter the core of the house through the ruinous outer shell with astonishing variety: the ruin becomes a kind of sundial.

Joinery

The rhythm of the roof structure is a quietly insistent bass line against which both the melody of the masonry and the harmonies of the joinery are set. The windows respond to the predominantly Gothic proportions of the castle openings in which each masonry cell has windows representative of the period of their construction: single round-arched openings in the medieval core, three-light Gothic pointed arch windows in the fifteenth century wing, and four-light mullion

and transom windows in the 17th century wing, as well as three-light windows cut into the first floor of the medieval core. We responded to the plurality of existing conditions, and their difference in emphasis, with distant, rather abstract echoes. The window to the first floor dining area is eight lights, that to the living area five. While they have a measured, proportionate quality, they are repetitive, open-ended – they defer to the masonry gashes, as if a smaller or larger gap could be filled in the same way.

In the west-facing wall and the curtain wall, we set the new windows as deep as we could, avoiding the abrupt encounter of crumbling masonry and crisp joinery, suppressing reflections and the inhabitation they betray. The large new windows in the south and spine walls step in plan, alternately close to the face of the brickwork and deep in the reveal. This avoids the shock of a single large reflecting plane, breaking up the play of shadows. They also qualify the scale of the first floor hall, a vast 14×7×4m, creating intimate niches with diagonal views outside the main volume. By laminating the perpendicular pane, it works as part of the structure of the glazing, allowing the corner mullions to be reduced while absorbing the wind loading at the centre. These windows are an interesting illustration of the tightrope we trod: is it possible that they can be both weak (visually) and strong (physically), abstract (there are no clues of scale) and intimate



Ground floor hall with stair

(forming inviting niches)? As with the stepping brick reveals, the long gestation of the project allowed us to draw lessons from the stepping glazed screens and apply them elsewhere. Although at competition stage we had suggested rendered masonry partitions, lined in wood on the inside, it quickly became a principle that all partitions within the original volumes should be carpentry, with a fine joinery lining. We dropped the idea of lining the rough masonry outer walls of the bedrooms, preferring to keep masonry and joinery in tension with each other: there would be no lining out, structure would be apparent (more or less). The partitions are therefore timber studwork, stepping both to gain stiffness and to accommodate existing openings, furniture and bathroom fittings. The studs are faced with dense fibre panels for sound and fire resistance, and with fine birch plywood. The linings echo the windows, with panels 800 mm wide, double the rhythm of the joists, and with joints covered by slender sycamore beads.

The stair is realised as an open studwork structure in oak, with open treads. Because it sits at the centre of the entrance hall, we have eroded its volume in order to ease movement into and around it. We kept removing structure until the engineers shouted "stop!" – then removed a bit more. This means that, as well as the steel stringer that keeps the centre of the stair open, the middle flight is hybrid steel and timber

construction, the studwork aided by steel hangers and braced by plywood panels. It would be too much to claim that the stair is a ruin, but its transparency and its impure figure, interlocking with other elements and spaces, make it part of a common family of material responses to the ruin.

Hanging stair aside, the crisply repetitive joinery is deliberately unsentimental and somewhat utilitarian. It may seem a role reversal from their conventional constructive characters, but following on from the nature of the crumbling masonry shell, we have treated the timber as hard, ordered and assembled, while we have treated the masonry as soft, chaotic and crafted. It is in this counter-intuitive line that the timber meets the masonry. Both the woodblock floors in the bedrooms and the joinery screens are joined to the rolling profile of the walls by means of a terracotta tile border which forms a straight edge at a distance from the wall, accommodating movement in the floors and keeping the wood finishes away from the walls, still profoundly damp after thirty years in the open.

Making rooms

A consistent concern in our work at Astley has been to make rooms: simple enclosed spaces that are harmonious and focused, places where

it is satisfying to remain. Our insistence on the tension between ruin and habitation, and on the tectonic consistency of the masonry and carpentry that express these, has made this work substantially harder. Equally, the wide range of states of decay of the stonework, and the wide variety of wood species utilised for the simple reason that they do a particular job well and economically, has found us using more varied materials than we would have chosen. Achieving balanced rooms has, then, come down to careful harmony of tones and hues: between stone, brick and tile; and between stained softwood, limed oak, bronze anodised aluminium and bronze-painted steel. This palette has been further echoed and expanded on in John Evetts' furnishing for the Landmark Trust, using deep copper and green curtains and rust coloured fabrics.

The emotional charge of the ruin

Much of the appeal of this project for us has been in the rigour and suppleness forced on us by the primary importance of caring for the artefact, the remains of the castle. In other circumstances, conventional or expedient ideas of comfort, taste or constructional ease might have advocated demolition or tidying to establish an easier starting point. However, our concern for rigour

Snowed in, April 2013

in the "full contact" work of maintaining and inhabiting the ruin is not completely detached from the emotional resonance of the finished house. From the beginning, our way of working has been discursive, moving between the deep structure of the building and the way the whole is experienced, and between the logic of interventions and the cultural ripples these might generate. We have mapped the remains with lavish care, written story books explaining the project to ourselves and others, sketched and modelled every room and opening several times, measured light, and made and judged numerous samples, mock- ups and tests. This partly explains "how", but doesn't explain "why".

Preserving the emotional charge of the rich, interrupted life of this house was our goal. While ruins can variously evoke the passing of hegemony, the restoring power of nature, the separation of the modern age from the reassurance of traditions, our individual mortality, they speak simply and directly through the house and its mundane routines. Carrying out research for the project, we noticed how many visitors to Landmark properties hired them for occasions, like 50th birthdays or an annual trip of a society, involving extended families or groups of friends; they hired them, you could say, to mark and measure a kind of collective time. This sense is clear in the entries in the visitors' book since the house opened. When houses have increasingly

become the expression of an atomised society of nuclear families, this “unhomely” house is a temporary throwback to a more collective form of living. There may be grander or more vertiginous ruins, but there can be none as immediate or personal as the ruin that is simultaneously a house.

1 Brian Dillon, ed., Ruins (Documents in Contemporary Art), London, Whitechapel Gallery and MIT Press, 2010, gives a good overview of the theme within recent artistic practice.

2 Anthony Vidler, The Architectural Uncanny: Essays in the Modern Unhomely, MIT Press 1992

3 Interviews with Ellis Woodman, manuscript copy courtesy of the author. These interviews form the basis of Ellis Woodman, Modernity and Reinvention: The Architecture of James Gowan, London, Black Dog, 2008

Witherford Watson Mann started off their collaboration nearly twenty years ago, with a series of walks through the edges of London; since then, they have approached every project as an open-ended enquiry. They have no stock answers for how change will translate into building; instead they find out through dialogue and adaptive design, helping progressive institutions realise their ambitions and reinforce their values.

Whether adapting an old furniture factory for Amnesty or shaping the city plan for London's Olympic quarter, they have always made the most of what is already there, adding judiciously to maintain the distinctiveness of each place but transform its capacity. Their best known building, Astley Castle for the Landmark Trust, won the 2013 RIBA Stirling Prize for its distinctive entwining of past and present.

Recently completed projects include social housing in Belgium, two small art galleries, and public spaces in Bankside, South London. A new generation of projects includes buildings for higher education, for small businesses, and for older people. Witherford Watson Mann distil the complexities of contemporary collectives, of urban sites and public processes into durable, economical solutions that remain open to future change.

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This essay explores our intellectual and imaginative journey from ruin to idea to construction, for our 2013 RIBA Stirling Prize winning project.