AT

ARCHITECTURAL TECHNOLOGY

Architectural Technology Awards

CIAT Awards 2013

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AT magazine

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Editor's foreword

CIAT's Awards demonstrate Architectural Technology at its best, in theory as well as in practice.

During a recent telephone conversation with a construction products salesman, the topic of what exactly a Chartered Architectural Technologist is came up. This particular gentleman summed it by saying 'You're the ones who make buildings stand up!'

It is a good phrase (although of course, members do much, much more) and it pithily demonstrates the importance of design for performance. For a briefer description, I prefer to quote the Institute's strapline and describe our members' field of expertise simply as, 'the technology of architecture'.

Promotion of the technology of architecture is a vital part of what CIAT does, and nowhere is this more obvious than in the Institute's annual Awards. This issue celebrates a wide range of projects which exemplify the best in Architectural Technology today.

They range from innovative newbuilds such as the Louise Hamilton palliative care centre, the winner of the Open Award, (page 4) to refurbishments such as Fonab Castle Hotel in Pitlochry (page 10) which resurrects two near-derelict buildings of different eras, combining them into a unified whole, and Scott Kyson MCIAT's clever overcoming of space constraints in a Georgian terraced house adaptation.

Promotion of the technology of architecture is a vital part of what CIAT does

As well as the cutting edge of modernity this issue also covers conservation. As Christmas approaches, the thoughts of some of us will turn to higher things, so what better time to read about work on two beautiful places of worship? In Lisburn Cathedral (page 20) and the Roman Catholic church of St Hugh, Lincoln (page 18), two projects were sensitively carried out by members making discreet use of modern technology in a historic setting.

Regards
Hugh Morrison
Editor

CIAT Awards 2013

Open Award for Technical Excellence

The Open Award for Technical Excellence in Architectural Technology is the Institute's premier Award and entrants must demonstrate their achievement of technical excellence in construction by illustrating the composition of ideas put into practice and presented in a working format.

Winner
LSI Architects LLP for Louise Hamilton Centre

The Louise Hamilton Centre is located in the grounds of the James Paget Hospital in Gorleston, Norfolk. Conceived by local charity Palliative Care East (PCE), it serves the local population around Great Yarmouth and the surrounding area by providing care and information services for anyone whose lives are affected by life-limiting illness such as cancer or motor neurone disease.

The centre was named after a local woman who died from breast cancer in 1998 at the age of 28 in an Accident and Emergency department and whose mother was instrumental in the fund-raising campaign. The centre was officially opened in May 2013 by HRH The Princess Royal.

Design concept

The original design is based around the idea of providing a high quality inspiring space that will bring hope to patients and visitors. The dramatic curved yellow wall winds in and out of the building connecting the outside with the inside, and its shape draws inspiration from boat hulls – a reference to the building's coastal location, and the notion of an ark as a place of refuge.

The treatment and counselling spaces wrap around the lounge area which provides a central hub onto which all other spaces connect, with private spaces discreetly to the perimeter, and social and communication spaces towards the middle. Views through from inside to out allow the eye to follow the line of the curved wall to its parapet and the sky beyond, adding to the drama and connection with the outside world.

Fabric, structures and services

The success of the end design was always going to be in the execution of the detail. To keep the building within budget it was designed to be clean, crisp and slick. There would be no room for error or lack of coordination, no inadvertent bulkhead for services not considered, or beams lower than ceilings. As such the building was modelled in full 3D to ensure that any coordination issues were resolved on screen, and not on site.

Subtle choices in materials such as oak skirtings, architraves and panelled doors with joinery quality plywood ceilings and bespoke furniture help to achieve a sense of quality to patients and visitors.

Interior design was considered holistically and the way in which the spaces connect both physically and visually is key to how this building can work flexibly. The interior design is as much in the shapes of those spaces and the views between, as it is in the colour of the walls.

The recipients of CIAT's Open Award, Alan King Award, Student Awards and Gold Awards were announced at the AGM in London in November. In this special issue, *AT* magazine looks at the technology and design of the winning entries.

Whilst the outer rooms were to be kept relatively simple, a variety of technical solutions were considered for the curved wall, including precast concrete, insitu concrete, CLT and steel. All would achieve the form we were after, but only steel minimised supply chain limitations. The final design was developed through a balance of performance, cost, and the ability to which local contractors, with local skills, could actually build it.

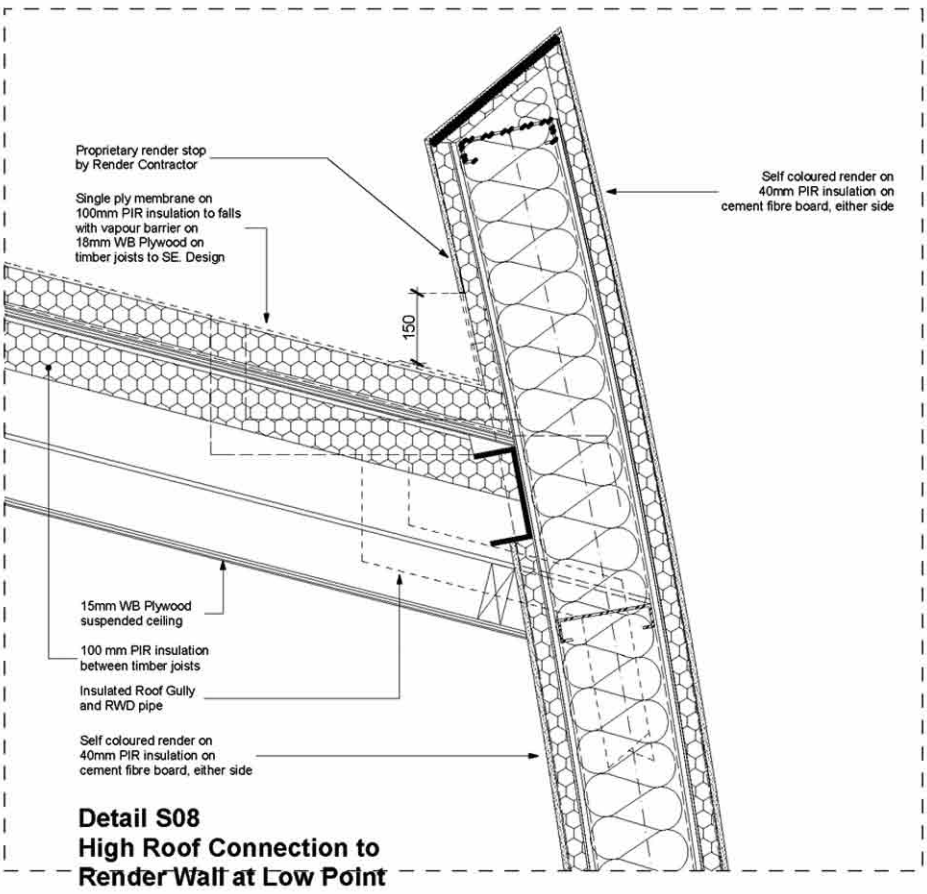
Innovation

Innovation is not just about new technologies, but also for new uses of existing technologies. This building uses simple and traditional solutions in an imaginative way so that the perception of quality far exceeds the technology behind it. The use of 3D CAD to ensure full coordination at the design stage significantly reduced construction risks.

The services design was fully detailed and coordinated with access for maintenance and expansion/future-proofing in mind.

Sustainability

The building is serviced as a large well-insulated dwelling, with simple controls and systems that can be maintained easily by the hospital's own maintenance team.



Left: a variety of technical solutions were considered for the curved wall, including precast concrete, insitu concrete, CLT and steel.

Below: Outdoor space caters for different needs, all within a protected and sheltered environment.

Opposite: The treatment and counselling spaces wrap around the lounge area which provides a central hub onto which all other spaces connect, with private spaces discreetly to the perimeter, and social and communication spaces towards the middle.

Above: Careful use of rooflights allows natural daylight to flood the inner areas

The design philosophy is that it is better to have a simple system that works well, than a complex system that doesn't. Sometimes less is more, and the team took the view that in this case, less would be more responsible, and truly sustainable.

Naturally ventilated throughout, heating is provided by a mixture of radiators and under-floor heating, with a considered balance between enough to make a difference, and not too much to cause significant temperature fluctuations throughout the seasons.

A range of spaces are provided both inside and out to cater for the needs of different patients groups: the conservatory for warm, shade from the sun, decking for full sun etc, but all within a protected and sheltered environment.

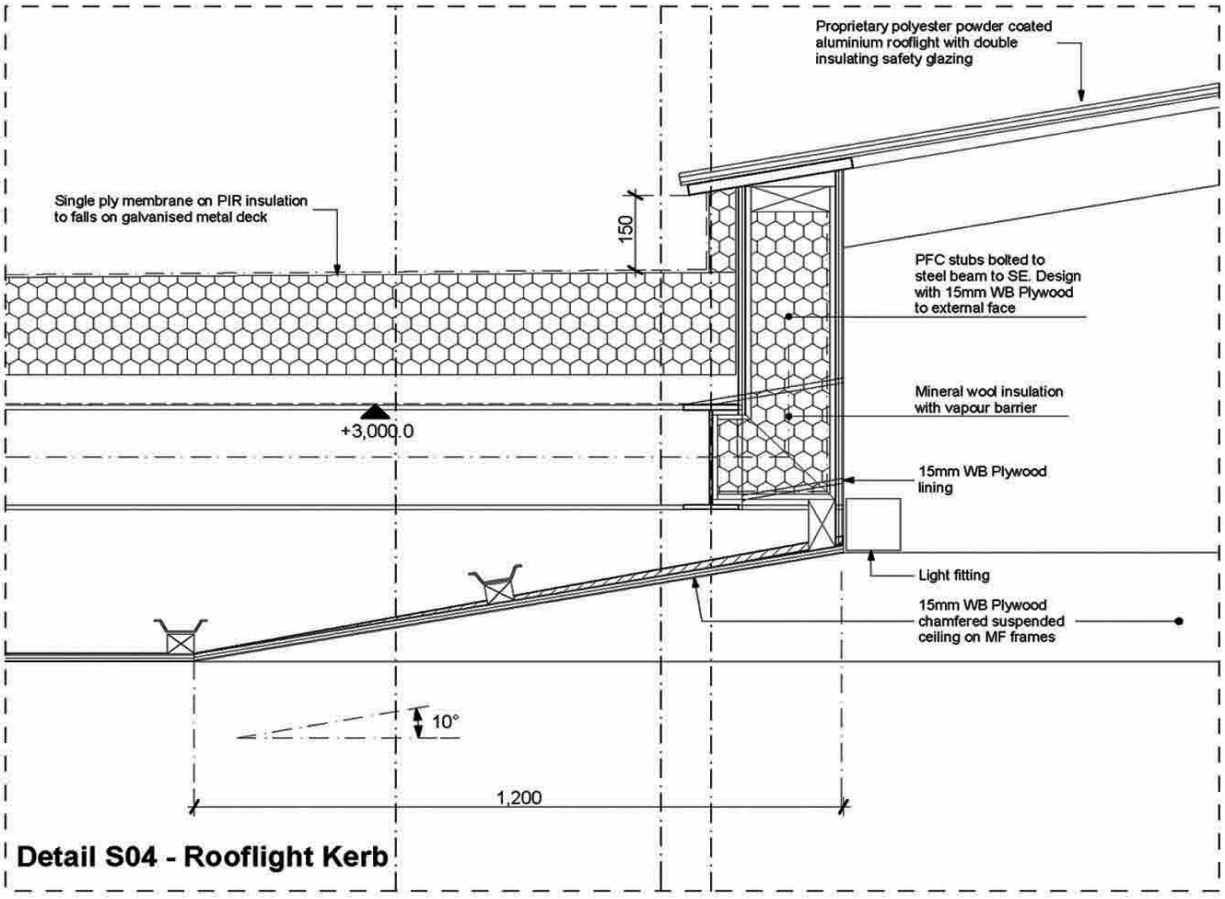
Working to budgetary constraints

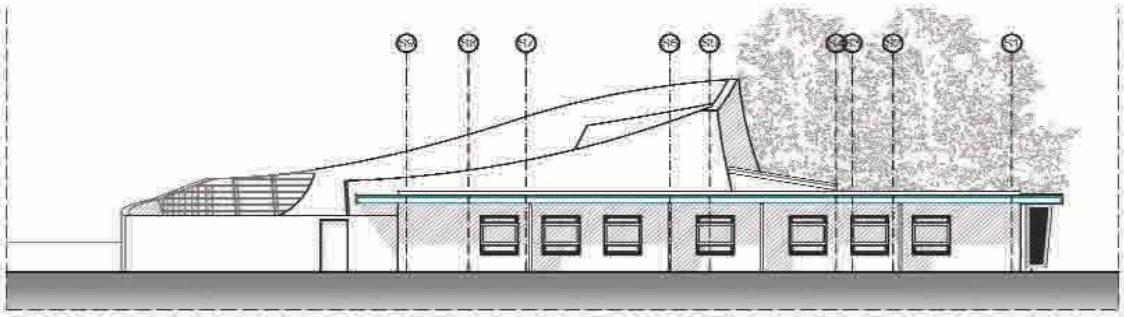
The project was entirely funded by public donations. Consequently the building was neither over-designed nor frivolous, but designed to provide maximum value for money balancing both end quality, and on-going maintenance. Careful cost control and responsible expenditure of provisional sums resulted in the project being completed under budget. Coupled with the project being completed on time, and the very positive comments received in the first few months of opening, the project has been a success at all levels.

Quality of work and craftsmanship

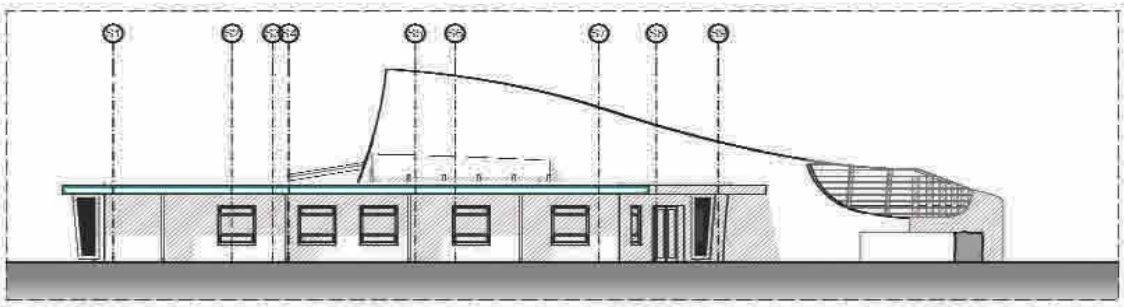
The contractors knew that the success of this project would be in the execution of the detail, and for that the design team relied entirely on them and their supply chain. Fortunately they rose to the challenge, and understood what this building was about. As such they have delivered a building of exceptional quality, and a lasting legacy for the local population of which they can be proud.

In addition to the Open Award, the project won a 2013 Norfolk Association of Architects Craftsmanship Award.

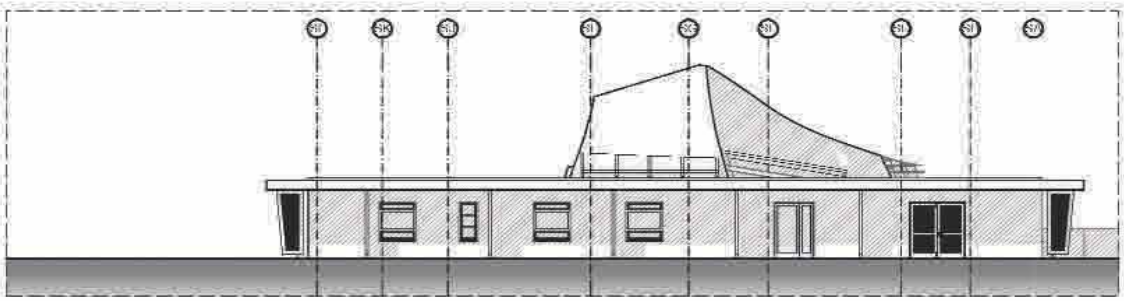

Proprietary polyester powder coated aluminium rooflight with double insulating safety glazing
Single ply membrane on PIR insulation to falls on galvanised metal deck
150
PFC stubs bolted to steel beam to SE. Design with 15mm WB Plywood to external face
Mineral wool insulation with vapour barrier
+3,000.0
15mm WB Plywood lining
Light fitting
15mm WB Plywood chamfered suspended ceiling on MF frames
10°
1,200
Detail S04 - Rooflight Kerb



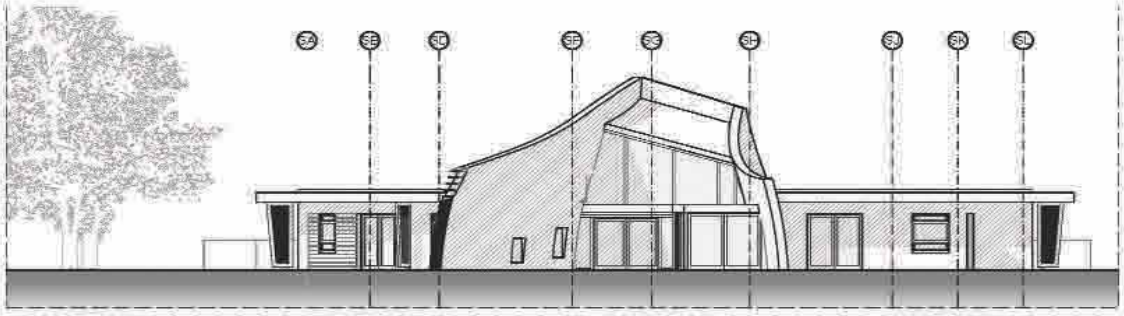
NORTH ELEVATION - 1:200



SOUTH ELEVATION - 1:200



EAST ELEVATION - 1:200



WEST ELEVATION - 1:200

Highly Commended

Scott Kyson MCIAT and Paul Carter MCIAT of Studio Kyson for 80 Great Eastern Street, London.

Combining retail, office and residential elements; the project at 80 Great Eastern Street works to revitalise and restore three Victorian warehouses as a single historic element in the urban fabric.

Located in a conservation area, the design and overall approach required careful consideration. The combination of a restrained materials palette and discreet scaling, supported by continuous conversation with the local planning authority brought about a building which now sits comfortably within its context for both user and client.

The brief was formed in part by the client but also by Kyson. Rather than a simple extension and refurbishment that was suggested by the client, it was proposed by Kyson that the building could also enhance the streetscape. It was proposed that other uses at street level such as retail would provide an active street frontage, and these uses would in turn provide a higher rental income than office space alone. Incorporating a residential extension could also help spread the financial risk.

The combination of good design and innovative development strategy resulted in achievement of the highest rents achieved in the area for each of the uses; it attracted Microsoft Yammer as a tenant and a subsequent visit from HRH Prince Andrew.

Several innovative approaches emerged through the design process. In order to meet both building regulations and project ambitions, the floor plates and structure were stripped back to their core historic elements, opening up and combining the three warehouse buildings. Additional steel structural elements were then inserted and threaded through the building to support the new residential apartments at roof level whilst allowing for the entire building to conform to disproportionate collapse regulations for tall buildings (Part A of the Building Regulations) and to create large expansive floor-plates.

With the new structure in place, nine duplex residential apartments were created at the rooftop level. For access, one double height corridor creates both

Steel structural elements support the new residential apartments

an architectural feature and an engineered solution to fire control; the additional height (increasing the time for the build-up of smoke) allowing for increased escape distances, meaning that a single uninterrupted corridor can run through the entire length of the building.

Further to the innovative design features above, several vital systems were integrated in to the operation of the building to reduce energy use and improve sustainable performance. The first stage brought the existing fabric,including external walls to modern regulatory standards. The existing services were replaced with more efficient heating and ventilation.

For the residential apartments, sustainable principles were implemented from construction. Timber frame and cladding provided a lightweight and efficient design, resulting in less additional structure being required in the parent building, whilst also minimising the carbon footprint. As part of a strategic approach to the apartment design, Code for Sustainable level 4 was targeted. This involved the use of heat recovery systems, discreetly built in to the kitchen units, full height windows to allow natural light and panoramic views, a green roof providing both insulative efficiency and reduced rain water run-off, and finally photovoltaics.

A high level of workmanship was achieved on the project throughout. The timber frame was partially manufactured off site and partially ‘stick built’ on site, which required a high level of dimensional accuracy; this involved additional staged survey work during each phase of construction, whilst bespoke joinery, glazing and plastering details filter through the entire build. The cladding was factory prepared to bespoke specification, and the timber was wire brushed and pressure stained black to achieve longevity and add depth to the colour. Existing brickwork and steelwork were cleaned/sand blasted to restore their original character.

A key principle was established early on in the project; the reinvigoration of the historic fabric to meet modern needs, and to support the building’s long term activity through adaptability and new use. An initial analysis of the building’s carbon footprint made clear the need for a thorough and complete refurbishment of the existing building before any new elements were added. This also allowed a minimalist style to emerge; exposing historic elements to sit side by side with more modem, but restrained, features.

Highly Commended

Edward Architecture for Fonab Castle Hotel, Pitlochry

In 2009 Edward Architecture were appointed by J Clark Properties to convert Fonab Castle into a luxury country house hotel. It was built in the late 1800s in local red Dumfriesshire sandstone and sits by the banks of Loch Faskally close to Pitlochry Festival Theatre. A more recent ancillary control room extension was used by former occupiers Scottish Power.

The imposing listed building has been sympathetically converted to accommodate 12 luxury suites and the control room has been transformed to include a further 18 double rooms. The two are linked with a new two-storey timber and glass structure accommodating a restaurant, bar and function room. A total of 36 holiday lodges nestled amongst the vast woodland estate offer a more peaceful retreat. Construction work is also due to start on the bespoke health spa and function suite which will include a stunning swimming pool and gymnasium. A new entrance link was added between Fonab Castle and the retained control room. The new entrance links also provides vertical circulation through the two buildings and level access to the ground floor, a necessity for DDA Compliance.

The contemporary timber-clad and glazed restaurant provides guests with far-reaching, ever changing views over Lock Faskally and beyond. Due to the importance of the listed building it was important to minimise the height of the bar and restaurant. This was achieved by retaining the existing suspended ground floor level which enabled the services to be located within the void below the ground floor.

Edward Architecture specified locally sourced, sustainable building materials, most notably Scottish larch cladding which wraps around the existing control room structure and breaks up the predominantly glazed restaurant and bar. This material sits well within the woodland setting and will weather with age. Vast expanses of glazing were used to maximise the stunning view across the loch. Due to the simple material palette emphasis was placed on the detailing. In particular, junctions between existing and new were well considered, with a clean, practical result.

Top: Fonab Castle with inset showing the old control room. Above: the restaurant interior

The project was completed under the initial construction budget of £10m. This was achieved by thoughtful design, particularly during the early stages of work. Vast amounts of money were saved by maintaining the existing structure and converting the control room. The close working relationship between the client and the main contractor, who had worked together previously, also proved important in keeping costs down.

Commended

Once Architecture Ltd for The Pool House, Cambridge

Once Architecture Ltd were commissioned in 2010 for the erection of a new superstructure above an existing swimming pool substructure. The existing shell, plant and services were to be removed to make way for the development. The application was approved under delegated powers by the local authority.

After having the timber frame shipped from the United States where it was manufactured, the components were transported to site for erection. Consideration of the site access constraints played a very important role during the design phase. It was established that the larger components – measuring up to 400mm in diameter and 9.0m in length – could be delivered and erected in the old quarry site, which would be accessed via a 3.5m private drive over a site variance of 2.5m. Additional research was required to establish what size of crane, if any, could enter the site and lift the weight of one of the posts.

Although the previous structure and fabric had come to the end of its life-cycle, the actual pool structure was in very good condition. Following a structural assessment, it was determined that the concrete pool structure could have in excess of 25 years remaining. This was offset against the anticipated pool replacement cost of £50,000 and consequently it was agreed that retention of the existing pool presented the best economical approach. Redwood was the preferred material of choice given the lengths of the posts required, and a life expectancy of over 40 years – exceeding the client's requirements. The roof tiles, which are factory glazed clay interlocking, are less susceptible to cracking in frost, and all of the window joinery is hardwood.

Due to the tight nature of the site and the maximum widths, the joists were spanned between columns. A large proportion of the piles were driven within a metre of the pool structure. The clients requested that the full-height frameless glazing was to run behind the posts and in front of the pool, resulting in a structural width of 225mm between pool structure and pile cap.

A special stainless steel floor duct was designed to house the ventilation system to prevent condensation build-up on the front windows. The clients also had ten pieces of stained-glass artworks which they wished to have displayed on a radius of the building. Being single glazed, these would not meet the minimum U-Value standards, so a secondary double-glazed system was designed, which was both ventilated through trickle vents and accessible for cleaning.

The fabric of the building was insulated to a level which well-exceeds minimum building regulations compliance. South facing windows were treated with SunCool to reduce over-heating. Highly efficient (SEDBUK Band A) combination boilers run the wet underfloor heating system at a very low, but constant temperature, reducing energy bills significantly. A specialist contractor was bought in to specify and install the plant filtration and heat recovery system to the pool room. Large over-hangs on the south face were also designed to allow for summer cooling.

Due to the tight nature of the site, there were various important considerations at the design stage. Careful planning was required to fabricate, transport and erect the large redwood frame. The flat-roofed terrace was formed in tapered insulation and a single ply membrane. The ground floor construction consists of the existing pool slab and a traditional beam and block floor allowing sufficient under-floor ventilation. Full height, frameless glazing provides uninterrupted panoramic views of the newly landscaped gardens, which also formed part of the brief.

Particular care and attention was given to the finish of the building fabric. Due to the nature of the build, most of the junctions are exposed and therefore required traditional craftsmanship in their construction. All glazing, frameless or otherwise, was purpose-made and constructed to a very high standard. The tiles to the existing pool shell were stripped off and replaced with natural stone. A floating deck system was designed to the rear roof terrace to allow for the large walk-on rooflight above the jacuzzi to remain flush. Copper guttering and downpipes discharge all of the storm water into a new landscaped pond which acts as an attenuation system (through evaporation) for the development.

Above: Redwood was chosen for longevity. Below: The new overhang to the existing substructure.

The Alan King Award

Entrants in the Alan King Award must demonstrate their achievement of technical excellence in construction by illustrating the composition of ideas put into practice and presented in a working format, for projects valued £750k or under.

The bespoke staircase incorporates a folded steel sub-structure.

Glass floors allow daylight to penetrate to the basement.

Winner

Scott Kyson MCIAT of Studio Kyson for Montpelier Terrace, London

The project brief was to remodel a Georgian cottage, a property untouched for over 50 years, to provide a state-of-the-art environmentally conscious family dwelling. In the Knightsbridge Conservation Area stands Montpelier Square, made up of five storey brick and stucco terraces. Next door to these grade II listed buildings in Montpelier Terrace are three unlisted late-Georgian three storey properties that are more modest in scale and simple in style. These unlisted and understated buildings include 5 Montpelier Terrace.

The property was purchased for its position within the Knightsbridge Conservation Area, but did not fulfil the client's needs or expectations of size, layout or decoration and therefore a simple refurbishment and extension would not suffice. With a typical townhouse floor-plan, the rear close wing and yard had been enclosed on all sides by post-war apartment blocks thus creating a very dimly lit interior.

Kyson's approach was to remove almost all internal walls and floor plates, thus leaving an open box of space on the site bound by the front façade (an important feature of the Conservation Area), neighbouring party walls to the side and the yard walls to the rear. To maximise the floor area a basement was proposed beneath the entire site; the only full floor plate within the property, with the ground

Lack of natural daylight in the original Georgian design, made worse by post-war development, was overcome by use of glass.

The ground and upper floors act like platforms around a triple-height central atrium

and upper floors acting like platforms arranged around a triple-height central atrium and linked both physically and visually by a contemporary oak staircase.

The position of the atrium and use of glass floors allows daylight to penetrate through to the basement with breath-taking effect. The property achieves a level of grandeur through space and light that exceeds the expectation of such a modest domestic building.

Whilst the arrangement of space and selection of materials demonstrates excellent creativity; these design choices breached Part B of the Approved Building Regulations. The design did not provide a traditional enclosed escape route from basement or bedrooms, the atrium provided no vertical compartmentation against the spread of fire or smoke, whilst glass does not provide the fire resistance required for floors.

A study was undertaken into the risk areas for fires, the passage of smoke, escape distances, escape times and the fire resistance of structural glass and oak. The Fire Engineered Solution (FES) proved to be quite simplistic and elegant; eight domestic sprinklers were introduced to the basement and kitchen, an AOV was placed at the head of the open stair and an interlinked alarm system was installed in each habitable room. A reduction was achieved in energy consumption over and above the requirements of the building regulations; as a single dwelling refurbishment the Code for Sustainable Homes did not apply, however the Code was used for guidance.

Two key installations that were fundamental to the scheme's success were the glazed structures and the oak staircases. To achieve the quality and accuracy required for the glass installation and to install it in one weekend (due to road closure/crane permit restraints) numerous staged site surveys, factory visits and detailed coordination of specialist sub-contractors' drawings were all carried out.

The bespoke staircase, that incorporated a folded steel sub-structure, was further complicated by splitting the contract into three trade packages to reduce costs (steelwork, carpentry and glass). This required a continuous site presence during certain stages of installation and visits to the steel forge to ensure the elements were manufactured correctly.

The project was completed within tight budgetary constraints; the builder was pre-selected for the project by the client, which enabled him to provide a cost plan at an early stage; the design was revised accordingly during these early stages. Many materials were obtained directly from manufacturers to eliminate middlemen and unnecessary costs. Despite the exclusive postcode, the 'value for money' approach was no different to a project in a less affluent area.

The late-Georgian, unlisted three storey property in Montpelier Terrace, SW7.

Highly Commended
Phillip Hapka MCIAT, James Denholm Partnership for Wester Deuglie, Perthshire

When Philip Hapka MCIAT was asked if he could convert a barn into a modern, low energy, domestic property, while maintaining the character of the building within its rural setting, he says his first thought was, 'no problem, I've done quite a number of these in my time.' This wasn't quite how things turned out.

The barn, a former mill, dating from the mid 1800s, was situated 213 metres (700 feet) above sea level, in the Ochil Hills, in a rural part of picturesque Perthshire. Despite being only a few miles from Perth and the busy M90, access to the tranquil site was via a winding, single track, public road, containing some very steep inclines.

The barn had a limited span and the one and a half storey building was just a shell with a decaying roof, no floors and stone walls which, although basically sound, needed considerable attention. Severe planning constraints meant that any conversion had to retain the existing building form and massing, and utilise as many of the existing openings as possible.

The slated roof needed total replacement, but its load had to be supported by a means other than the existing stone walls. An early decision was made to install a timber frame within the shell to prevent future wall-head spread, however this also had a draw-back in that it intruded on the already limited floor space, which put considerable pressure on achieving a workable design. The engineer advised that ridge beams be installed to transfer main roof loads to the timber framed walls by means of timber girder trusses, interspersed with site framed traditional rafters. This proposal became the key to design flexibility, yet maintained the form and massing of the existing layout.

As a timber frame was also considered the best way of achieving the desired U values, a reflective, breathable material was installed on its external side and semi-rigid insulation was used within the frame. All electrics and other services were installed in a service cavity, on the internal side of the frame, to necessitate ease of installation, future maintenance and integrity of the insulation. The building was also fully re-pointed and all cavity weeps were made vermin proof.

A new, insulated, concrete ground floor was installed, containing, zoned, PEX heating loops within a screed, which was then overlaid with engineered timber and slate to maintain a rural feel. Conservation roof lights were installed, to both light the first floor rooms and retain the existing roof profile. To maintain quality of the high performance bespoke windows and doors, manufacturing was out-sourced to Poland, where supply and quality could be achieved within the limited budget.

Primary heating and hot water was achieved through solar PV panels and a ground source heat pump, with secondary heating from a carbon neutral wood burning stove, thus producing excellent SAP and EPC results. The water supply was obtained from a UV treated and filtered private bore hole near to the property.

Ground floor kitchen. Water supply is obtained from a private borehole.

The first floor. Ridge beams and timber girder trusses were installed to transfer the roof load to the walls.

Right: the barn before and after conversion.
Above: Interior showing wood-burning stove.
Manufacturing was outsourced to Poland to reduce cost.

Student Awards

The Student Awards are in two categories, Project and Report. This article summarises the work of the recipients; the full articles will be published in forthcoming issues of AT.

Maggie's Centre

Student Award for Excellence in Architectural Technology (Project)

Entrants must demonstrate their achievement in Architectural Technology by illustrating the composition of ideas put into practice and taken from a university/college assignment or a live project.

Winner
Simone Ceccato for Maggie's Centre, London

This design is for a cancer care centre in Moxon Street, London W1 and includes a series of 10 retail units with associated and back of house facilities. Surrounded by Victorian buildings, *(see above image)* the centre is designed to focus the user on a range of different activities. A continuous flow between the surrounding environment and the building itself aims to bring nature inside while also ensuring privacy.

Highly Commended
Matthew Cross for Little Oak Primary School

This design for a primary school aims to provide multifunctional learning environments that encourage social interaction and creative thinking for both pupils and staff, while allowing flexible opportunities for local involvement to encourage a sense of place at the heart of a community.

Commended
Daniel Owen for Disabled Children's Centre

The project is located on a former church site in Norwich currently occupied by the Norwich Family Life Nursery in temporary mobile classrooms. The proposed scheme for an Educational Day Centre for children with special educational needs aims to revitalise the site, re-generating it with a visually inspiring, sustainable and energy efficient building.

Commended
Stephen Bard for Visit and Climb centre

The concept is a visitor centre for climbers among a secluded limestone crag in the town of Chudleigh,Devon. The building is an unheated space for outdoor pursuits, which will make the most of the site's natural beauty and stunning views whilst resting harmoniously in its surroundings.

Visit and Climb centre

Student Award for Excellence in Architectural Technology (Report)

The Report Award recognises the writing and research skills of students. Entrants must demonstrate their achievement of excellence in Architectural Technology by illustrating the composition of ideas in the form of a technical report or academic paper based on a dissertation or research assignment.

Winner

Andrea Obremski for *Building Integrated Transparent Photovoltaic Cells*

This paper investigates the core considerations of integrating transparent photovoltaic technology into a building envelope as a substitute façade material. It summarises the key types of cells available and their appropriateness for specific applications with regards to their effectiveness in different climates, rather than generic laboratory tests of peak performance. The production methods of the different types of photovoltaic cell are particularly of interest as they affect the whole life cycle of the cell and therefore the suitability of their usage.

Highly Commended

James Daw for *Insulating Solid Masonry Walls*

This report looks at the effects that adding insulation to a solid masonry wall in a sample house has on its thermal performance and calculates the amount of ventilation required in the house to avoid interstitial condensation using a sophisticated spreadsheet. The insulation proposed is blown cellulose, a (mostly) natural product, in keeping with the existing wall materials, which allows the movement of water vapour through it. The blown insulation is injected into an existing cavity in the wall, maintaining the original historic building fabric minimising disruption to homeowners, unlike most of the other options available. The overall impact on energy consumption is then calculated.

Commended

Michael Freeman for *The Improvements in the Accuracy of Digital Recording*

This project is about the different ways of which this information may be gathered and stored in a digital format but also the importance of managing to do this before that information is lost. The main techniques looked at are laser scanning and photogammetry – and the accuracy of each of these.

By comparing these techniques to the more traditional approach, this documentation will be looking to see if it is beneficial in saving time in gathering the information and how accurate this information is. In particular, new photogammetry modelling software by Autodesk called *3D Catch* will be tested in order to produce 3D models.

Above: Disabled children's centre. Below: Little Oak Primary School

Michael Freeman's report focused on digital recording of buildings at risk. Top: a ruined dovecote and below: a 3D printout of the structure.

Sacred to the

The Roman Catholic church of St Hugh, Lincoln, underwent a major refurbishment project. John Halton MCIAT, Accredited Conservationist, shows how he overcame the major architectural and administrative challenges involved.

St Hugh's is the primary church in the cathedral city of Lincoln. Of all the towns in the Diocese of Nottingham, Lincoln has the fullest and most continuous Roman Catholic history. The church is Grade II Listed and located in a conservation area on the corner of Broadgate and Monks Road, at the bottom of Lindum Hill, which forms the prominent thoroughfare to the cathedral itself.

John Halton Design Ltd was appointed by Father John Kyne to consider designs for improving and redecorating the church. No internal work had taken place since 1985 and there had been little in the way of investment into the building other than a re-roofing project in the 1990s. Internally the surface finishes were old and dreary with crazed plaster to the walls. The general appearance throughout devalued the impressive Early English gothic architecture created through the dramatic arches and vaulted ceiling. Substantial structural cracks were evident to portions of the external and internal walls.

Father Kyne was comparatively new to the parish and was conscious that work needed to be implemented as a priority. The parameters of the brief were discussed and the areas to be addressed were identified.

The parish was made aware that any changes to the church would be subject to statutory approvals. This included planning, and listed building and conservation area consent in addition to Building Regulation and Historic Churches Approval. The Historic Churches Committee ensures that any alterations made to a listed building are carried out in a manner respectful to that church's historical and architectural significance and consonant with the wider public good.

Consideration of grant aid was also investigated, however, the nature of the work fell into a category that did not enable a strong case to be made. On this occasion the client preferred to pursue the option of the reduced VAT levy for listed buildings that was on offer at the time.

Before design work commenced, a measured survey was produced and a structural engineer appointed to advise on defects. Furthermore, a Statement of Significance was prepared to identify the key issues that would inform a future design. This study covers many areas of research. The importance of a heritage building can only be understood by establishing certain values.

The original date of construction, architect and listings are vital to this process along with understanding the sentiment and rituals associated with the use of the building. Roman Catholic church buildings conform to a particular order which is linked to the liturgy of the mass. They also incorporate sacred artwork in the form of murals and sculptures in addition to the pictorial stories that are visually apparent in stained glass windows.

The aim of the design scheme was to enhance the interior and open up the church to the outside. All this needed to be achieved with respect to the existing building and with the philosophy of minimum intervention in mind. This design needed to create a light and vibrant environment internally enabling the church to communicate with the street scene on Monks Road, encouraging and inviting people into the space. This was achieved by introducing frameless glass inner doors. The inclusion of these contemporary glass elements provided a transparency through the church.

The nave was also enhanced so that the splendour and detail of the interior architecture could be appreciated. Particular care was taken not to distract attention from the altar table, tabernacle and reredos on the sanctuary. The paint colours were subtly chosen from the Victorian era in order that the surface decoration did not compete with the grandeur and drama of the interior components.

Introducing a traditional oak board flooring proved successful and has enriched the setting of the historic church along with the new paint decoration with the gold leaf detail.

The two rooms either side of the chancel were in poor condition and these were refurbished and transformed into music and meeting rooms. Structural cracks in the masonry had been monitored over an extensive period and were given the all clear for Helibar stitching and making good.

memory

The sanctuary was reconfigured, resulting in the altar table being brought closer to the congregation and with respect to the patrimony of the church, a new stone altar table was crafted in Coursehill and Portland stone in harmony with the existing materials observed. Also, the existing timber pews were cleaned and the kneelers reupholstered. The baptistry was given a special place within the church, next to the altar, and illuminated accordingly.

To reinforce the importance of the chancel area, a red carpet was fitted from the frameless glass doors along the central aisle to the sanctuary area. The reredos remained in-situ and the inclusion of two hand carved timber tracery screens below the line of the existing murals establish a strong visual connection throughout the length of the church.The intensity and quality of the illumination around the nave and sanctuary was increased with additional lighting. The linear format of the new red carpet unites with the front entrance. The transparency resulting from the introduction of the frameless glass doors now allows passers by to glimpse into this place of worship, enabling them to experience something of the mystery of the faith. The result of this work has helped to rejuvenate the splendour of the gothic era and promote the presence of God in this central part of Lincoln.

The internal renovation and re-ordering was marked by a mass of thanksgiving by Malcolm McMahon O.P, Bishop of Nottingham and a memorial plaque is mounted at the entrance. On 12 November 2012 the final certificate was issued.The internal refurbishments were designed and administered by John Halton Design Ltd, with R&SL North as the appointed contractor. SI Consultancy provided the CDM role.

The conservation restoration specialists working on this project were Nigel Leaney and Susan Lee. Gillick Brothers were commissioned to modify the stained glass window dedicated to ‘Christ the King’ and replenish the statuettes.

Conservation projects are a result of collaboration between many disciplines. A common misconception is that a designer Accredited in Conservation is an all-encompassing singular role. Working in conjunction with the conservation officer, the parish and conservators, and collecting information is vital to the process. Knowledge of the various conservation conventions and understanding significance is a prerequisite for undertaking a commission of this order. English Heritage and the Society for the Protection of Ancient Buildings (SPAB) provide useful resources for guidance.

Ancient and Modern

CIAT registered practice Des Cairns Architecture played an integral role in the latest chapter of the Lisburn Cathedral story. By Adam Hassin, Editor, *Northern Building Magazine.*

Phase one involved external work

Christ Church Cathedral (Church of Ireland) is located in Lisburn, County Antrim, the third largest city in Northern Ireland, a few miles southwest of Belfast. There has been a Christian presence on the site for over 400 years but the building itself has undergone major changes during that time, with the latest – the third to stand upon the site – completed in 1719. However, the emphasis of this latest reinvention was to deliver a modern adaptation of the facilities while maintaining the historical integrity of this beautiful building.

For Des Cairns MCIAT, principal of Des Cairns Architecture, Lisburn, the most important aspect of any heritage project is finding a balance between the historical significance of the building and its place in modern-day society. However, being a member of the church, he also had a personal connection with the project.

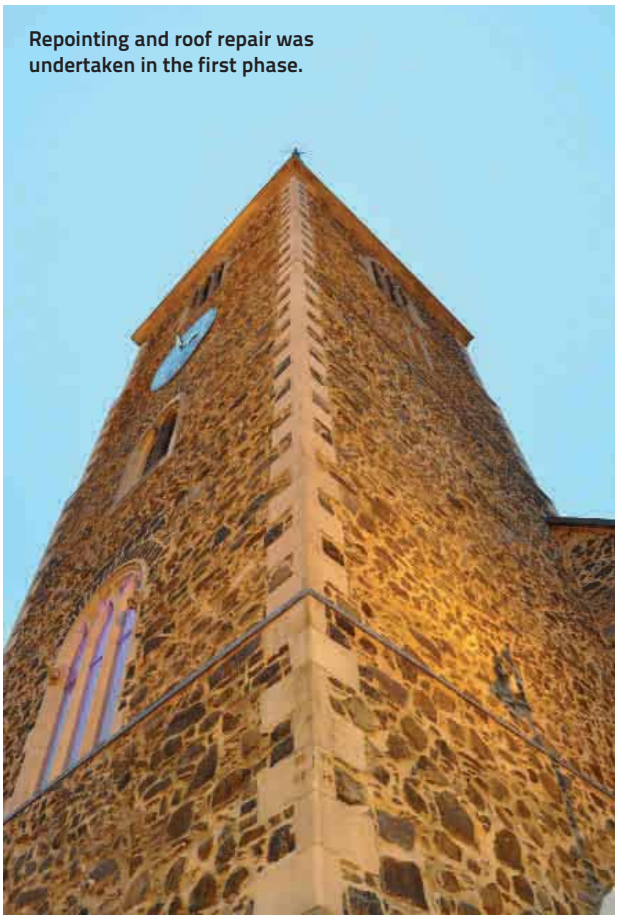
'It is vital to understand the significance of the building, both in terms of its history and how it is presently used and could be used in the future,' he explained. 'For me, this is what dictates the route you will take on the project and any decisions you will make.'

The work at Lisburn Cathedral was carried out in two sections. Phase one was completed two years ago and involved exterior work including repointing, repairs to the spire and weather vane, repair of the east facing stained glass window tracery and partial replacement of the roof covering.

The second phase was all internal and included rewiring, new lighting, new seating, a coffee area, new audio visual provision, carpeting and redecoration.

'While the two phases focused on very different aspects of the project, the external work helped shape our entire plan,' Des explained. 'This first phase entailed real attention to detail from an historical perspective and allowed us to develop a real understanding about the building.' Des used this understanding to shape the look and feel of the interior, which offered a very different challenge.

'This was not just about providing a building solution – we had to look very closely at the functional needs of the congregation, both now and in the future,' added Des.



Repointing and roof repair was undertaken in the first phase.

Vestibule area with (below) foldaway kitchen facilities.

Functional needs of the congregation had to be balanced with historical detail. Des used this understanding to shape the look of the interior.

As such, flexibility and adaption became the buzzwords of phase two, with the priority being placed on maintaining the balance between the required reverence of traditional and contemporary church services and a more laid back approach for other events.

'We have made the available space as flexible as possible to allow the church to be more than a building that is simply used once a week,' Des explained. 'It is now a modern, welcoming space that is breaking down the traditional view of a church to create an opportunity for people to engage with each other and their faith.'

The seating at Lisburn Cathedral is central to the flexibility now on offer, as it can be easily moved and rearranged to meet the needs of whatever group is currently using the building. The bright new oak and glass porch opens into the nave and the new coffee area with a newly sanded and polished floor that includes an area with a fridge, dishwasher, boiler and coffee machine. The needs of the church are emphasised with the addition of a new planar glass screen that provides subtle separation of this area to the main part of the nave.

A state-of-the-art Audio-Visual (AV) system includes three fully controllable HD cameras, 60-inch plasma screen TVs and two retractable video screens as well as high-powered video projectors. The new lighting system has scene setting and spot lighting capabilities while LEDs have been added to the windows to provide colour washes. The quality of the AV system is even more impressive given that it was a team of three volunteers – Martin Lester, David Lamont and Des Henry – who put it together.

All these new additions have not only been discreetly hidden but have been installed without damaging the historic elements of the cathedral. 'We have added all this new technology with virtually no wall drilling or digging up the floors,' added Des. 'We have used existing voids and directional coring to maintain the original integrity of the building while we have utilised specialist trunking concealed behind the skirting for wiring.

'In every instance we have tried to think about future needs and have also included a number of concealed C Form and DMX sockets throughout. While at times we may not have selected the most straightforward method of installation, it was always the best choice for the project's needs. Thankfully we have a great team of professionals who understood these demands and I think the results reflect this perfectly.'

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Clockwise from top: The AV system console. Coffee area with planar glass screen. The nave and vestibule before alterations. Lighting effects on the east window.

Height of luxury

Lee Wardman MCIAT of Wardman's Architectural Services worked on the construction of six luxury timber holiday lodges built on stilts to Code 4 Sustainable Homes within a small forest near Ampleforth, using the latest in biomass district heating technology.

Studford Luxury Lodges are unlike any other timber framed lodge built in the UK. The six, three bedroom holiday homes are constructed on Glulam stilts and come complete with en-suites, underfloor heating, steam saunas, jacuzzi and large timber decking area. This unusual and never before tried type of construction elevates the lodges by over two metres, providing a unique relationship with the landscape in which they sit and give a feeling living within the treetops while experiencing spectacular views of the surrounding forest.

The unusual location meant that there was a lack of mains services to the site. It was possible to take water from a nearby supply, but there was no mains drainage nor gas, and the nearest electrical supply was over 200 metres away. As there was no mains drainage in the area, the foul water discharges into a package treatment plant that disperses almost potable water into a large drainage field on site. Rainwater is discharged into soakaways. Solar PV was not possible due to the tree cover, so a new electrical supply needed to be installed. Gas was an impossibility and with the rising costs of LPG and oil, these options would not have been viable. The hot water and underfloor heating system is therefore produced by using the latest biomass district heating technology.

Choosing the right manufacturer for the biomass was easy. Windhager not only have a great reputation, but for more than 20 years have been pushing the boundaries of their wood pellet boiler range. The BioWIN 600 installed at Studford Luxury Lodges, offers a large output of 60kw ideal for district heating systems. Combine that with a small footprint, modulation from 18kw to 60kw and compact ash collection, maintenance can be carried out as low as one to two times per heating season. The BioWIN 600 is self-cleaning and fully automated for a turnkey solution with little to no maintenance. Windhager UK were offered the opportunity to help design the district heating system for Studford luxury lodges to ensure the most energy efficient system was provided. The system designed incorporated their weather controls otherwise known as MES (Modular Energy System) controls, in each of the six lodges.

The heating control systems are advanced and monitor the outdoor temperature to ensure that the heating system operates to its maximum efficiency, delivering the expectations of a modern heating solution. The system installed also mixes the heating temperature to suit 45C for the underfloor heating and 75C for the heated towel rails/radiator circuits along with domestic hot water demand.

Studford Luxury Lodges was also eligible for the RHI (Renewable Heat Incentive). Due to biomass being carbon neutral the government offer the RHI (non-domestic) to cut carbon emissions in the UK. Studford falls into the non-domestic category because it is classed as a district heating system meaning there is one boiler supplying heat to several properties. Studford luxury Lodges will receive annual return from the RHI and depending on usage a saving of 40 to 50% when compared with oil or LPG alternatives. The RHI offers 8.6p per kwh on tier one and 2.2 on tier two and it is index linked for 20 years.

ENplus A1 pellets are used, which have a moisture content of less than 10% and the Lodges have a pellet store with a capacity of 18 tonnes of pellets, and will take full loads of blown deliveries of no more than twice per year, keeping the fuel costs and delivery to a minimum.

The lodges nearing completion. The unusual location means that there is a lack of mains services to the site. Foul water discharges via an on-site treatment plant.

Steps to success with CIAT

Each year the Institute recognises outstanding students from Accredited Architectural Technology degree programmes. *AT* magazine found out what they have achieved and how their careers in the built environment are progressing.

The Institute's Award for Outstanding Graduating Student is presented to those on CIAT Accredited programmes who, in the opinion of their programme leaders, worked to the best of their abilities and put the greatest effort into their work.

Here the students talk in their own words about what inspired them to study Architectural Technology, their views on the discipline and their hopes for the future. A common theme is the importance of practical experience outside the classroom as well as theoretical study – a combination that is vital for the Architectural Technology discipline.

Michael Carr

Leeds Metropolitan University

Prior to graduating as an Architectural Technologist and completing the BSc honours degree, I had been working as a self employed carpenter and joiner for 15 years. I also spent two years volunteering as a teacher of carpentry in Kenya and six years running my own business. I undertook a HNC in building studies during this time.

The time for a change in career was finally decided in January 2008 whilst replacing a roof in the Lake District in the wind and rain. I looked at several disciplines from construction management to architecture and decided that Architectural Technology would best suit my skills and provide the new challenges I was looking for.

I was able to transfer this hands-on knowledge into a design and professional environment which helped me complete the degree course while working within a practice, gaining valuable experience and allowing the modules studied be put into practice straight away.

The course covered a varied set of modules including design, quantity surveying and legal frameworks which gave a wide overview of work in the built environment. I believe I gained my main knowledge regarding detailed design from working on live projects at the same time as studying.

My dissertation focused on the Earthship concept which looks at all aspects of sustainable living. This whole research project provided an in-depth understanding of sustainable concepts which I was able to use in subsequent university projects.

Now that I have graduated with a first class Honours degree, and the industry seems to be picking up, I am looking forward to the future of Architectural Technology including Building Information Modelling (BIM), Modern Methods of Construction (MMC) and pushing my technical designs to include further advances in sustainability, not only the environmental aspects but the social and economic ones also.

Niall Reiss Christie

Nottingham Trent University

Architectural Technology has been an extremely useful tool in gaining substantial knowledge in the built environment. Coming from a background of A levels, I had little to no knowledge of construction and the processes. As I wanted to work in the built environment sector, I chose Architectural Technology as I thought it would give me a greater understanding of buildings and the way they function, especially with an opportunity for a year out placement.

On the whole, I felt that my placement study was the year that I personally benefited from the most. This was because I worked closely with a Chartered Architectural Technologist which really pushed my learning 'through the roof'. I also worked alongside project managers, experienced RIBA architects, Part 2 architects and professionally qualified Architectural Technicians which allowed me to understand different disciplines and how they all work together on different construction projects.

During my placement, I conducted measured surveys, worked on planning applications and building regulation submissions which were crucial to my development. The only thing missing on my placement was visiting sites to oversee the construction. This is now what I am doing after having graduated, as I secured a job at an architects' practice a week after the final day of university. CIAT also helped my development by allowing students to attend its CPD events.

Toby Rainland

University of Huddersfield

My experience at the University of Huddersfield was a journey of discovery. As a mature female student in a predominately youthful male classroom it could have been alienating. However I felt welcomed, encouraged and appreciated especially by my course tutor, Charles Hippisley-Cox MCIAT. University was a 'now or never' moment!

So I took the plunge to wind up my decorating business, to focus on sustainability, design and technology. I am thrilled that I achieved the outstanding student of the year award for each of my three years of study, plus a first class degree. Having now completed my studies, finding work is still proving to be a challenge, but I sincerely hope that I will be contributing to a positive future promoting sustainable lifestyles through intelligent and holistic designs.

Graeme Hogg

The Robert Gordon University

Architectural Technology wasn't my first career. I started work on construction sites, fitting bathrooms and kitchens, and then progressed into joinery. With a construction background I chose to pursue a degree in Architectural Technology as I enjoyed the 'finer details in life'.

My background helped me to stand out during my degree, as the knowledge gained on site was easily portrayed in sketches and designs. I would recommend to anybody starting out on an Architectural Technology degree to seek a part-time job labouring on site, as this will turn their 2D drafts into reality.

Doing an Honours degree isn't for the faint hearted. By the time you get to the fourth year, seven days a week in university will be a common thing. If you manage to succeed, rewards come in thick and fast, and employment opportunities are endless.

Rhodri Jones

Pembrokeshire College

For individuals who have an interest in both the art and science of architecture, Architectural Technology is the perfect choice. The three year course was the perfect balance between conceptual, spatial design and practical application of building science and technology which enables a graduate like me to enter the vast industry of construction and design with a substantial level of knowledge understanding and confidence.

Architecture in recent times has totally changed, as has the role of the Chartered Architectural Technologist. As we move away from convention and forward to more sustainable options, the involvement of the Architectural Technology professional has never been so important. I would really encourage anyone who has an interest in architecture to consider a course in Architectural Technology. The three years flew by for me and now I am left with a fantastic degree and a gateway to one of the biggest and most important industries in the world.

For individuals who have interest in both the art and science of architecture, Architectural Technology is the perfect choice

Before embarking on my degree I was lucky enough to be working in a CIAT practice, developing my skills and readying myself for the course. This proved invaluable as real life projects carry with them experiences that cannot be learnt within the classroom.

Paul Scullion ACIAT

University of Salford

I have worked in built environment sector for over ten years and have always had a passion for architecture and the design challenges and complexities that each project presents. Following completion of a course in health and safety, and an HNC in Building Studies, I was keen to continue my education and chose the degree in Architectural Design and Technology at the University of Salford. Architectural Technology provides a fundamental role within the industry by integrating conception, design and technology into a single discipline.

The degree enabled me to focus on sustainability and conservation; issues that I am passionate about

I chose the University of Salford for both its outstanding reputation and the fact that students are able to work on multi-disciplinary projects within the industry, proving an excellent preparation for real life working environments. In addition, the degree enabled me to focus on sustainability and conservation; issues that I am passionate about.

I graduated with first class Honours whilst continuing to work in the industry and was thrilled to receive both the Award for Outstanding Graduating Student Award and the CIOB Award for Best Performing Student. I joined as a student member at the start of my degree and found it to be an incredibly useful resource, providing both guidance and direction within an ever-changing industry.

I have since become an Associate member and am determined to become Chartered within the next three years. I am currently looking for employment with a company which will enable me to fully utilise my qualifications and experience.

Jennifer Shields

University of Bolton

Working on and seeing local developments from inception to completion in my home town gave me the desire to influence the area in which I live and continue to university as a student member. I finished with a first-class foundation degree with Distinction.

Although studying and working part time along with juggling my family life and commitments with a young child was challenging, I couldn't wait to continue and straight from college (age 26) enrolled on the BSc (Hons) degree in Architectural Technology at the University of Bolton.

The final semester of the final year was tough, with my design project (an 80 house housing estate and infrastructure) along with the interdisciplinary project (working with other students on related courses to produce a fully designed and costed six storey mill conversion) and of course my dissertation.

My family made sacrifices for me to be able to study and my design studio lecturer Nooshin Akrami MCIAT was so supportive and encouraging. My dissertation supervisor Dr Fred Sherratt was, and still is, so inspiring, she is highly passionate about her work.

I am so excited to be setting up my own practice! I shall be working towards progressing my membership and it will be just me working from a home office to start with but I already have three commissions. I am at the moment writing research papers for the Association of Researchers in Construction Management (ARCOM) to be published early next year. I am also about to start a PhD part time at the University of Bolton.

I shall be working towards progressing my membership

Alex Tullet

University of Brighton

Architectural Technology was my choice for a degree for one main reason. I wanted a degree that would provide me with a well-rounded basic understanding of the different disciplines within construction. I felt it was the best choice to allow me to not only produce buildings that are aesthetically pleasing, which is something I have always appreciated, but also overcome problems regarding their function.

Since leaving university I have taken up a position with Dunphys Chartered Surveyors on an initial one-year contract. I feel that the Architectural Technology degree has allowed me to feel comfortable working with industry professionals and also make a valuable contribution. Having now been able to put into practice a number of things that were covered within my course it has confirmed I made the right choice in selecting Architectural Technology.

I wanted a degree that would provide me with a well rounded basic understanding of the different disciplines within construction

I aim to be a Chartered Architectural Technologist in five years' time and be working my way up within the industry. Working at Dunphys has given me exposure to a number of different areas within the industry, which will allow me to make my future career choices.

I would encourage anyone considering a degree or career in construction to look at Architectural Technology!

To find out more about the CIAT Award for Outstanding Graduating Student please contact Bonita Carmel, Education Administrator. Email bonita@ciat.org.uk or telephone +44 (0)20 7278 2206.

A licence to print money?

Is your business software properly licensed? Award-winning architectural firm Kyson underwent a BSA Software Alliance audit. Scott Kyson MCIAT found it raised important questions about architectural practices.

Although nearing the tenth anniversary of establishing my practice; I still feel like a relative newcomer to both the competitive architectural market place and business management alike. From starting out as a sole practitioner working from home to now employing 12 full time staff and residing in our third premises in Shoreditch, London; it has certainly been a steep learning curve.

During this period of growth and expansion a number of key strategies and decisions were made regarding all aspects of the businesses development, all varying in scale, excitement and subject. It was however around 18 months ago that we realised we had rather naively overlooked possibly one of the most essential aspects of the business and that was our IT infrastructure. We had been served with a 'self-audit' by BSA Software Alliance; we were asked to produce an audit of all the software installed on each and every PC within the practice.

According to its website, BSA Software Alliance is *a non-profit trade association created to advance the goals of the software industry and its hardware partners. It is the foremost organisation dedicated to promoting a safe and legal digital world.* Headquartered in Washington, DC, it is active in more than 80 countries, with staff in 11 offices around the globe.

It was during this audit that we realised that we had inadvertently allowed past and present members of staff to upload various supporting graphics software to their PCs. We obliged the request of the BSA, and upon disclosure of the unlicensed software that we had installed, we negotiated an appropriate financial penalty and were ordered to remove said software and ensure that all future software used by the practice was licensed. Up until this point our IT infrastructure had grown rather organically with additional PCs being purchased from time to time for a network with no real dedicated server, each with various versions of the latest operating system, Autodesk of Adobe software.

Clearly a young practice such as ours competing within a competitive market place does not wish to attract such negative PR or be seen to promote the use of 'unlicensed software'; however the positives that were taken from this event were much greater than one could have realised.

The latest graphics software could cost in excess of £10,000

The actions of the BSA Software Alliance prompted us to seek professional advice and as such we re-structured our infrastructure, whereby we now have a dedicated server on our network (backing-up daily) and whilst each PC still has full licenses for the essential software, we purchased 'network licenses' for supporting graphics software which will allow any three to four members of staff (depending on software) to use the graphics software at any given time. This was not nearly as expensive as we had thought and actually enhanced the operations of the practice considerably.

Having had time to reflect on this event and now looking back at the approach of BSA Software Alliance and its admitted policy of pursuing 'small architectural practices', a number of topics have arisen which members may wish to consider and debate:

1. Students are currently given free licenses that would be ill affordable once they graduate; does this encourage the use of 'unlicensed software'?

2. Is it a known practice for some sole practitioners to use unlicensed software to reduce their start-up costs?

3. Are software prices too high? A fully loaded PC with the latest CAD, 3D modelling and graphics software would cost in excess of £10,000.

4. Could small business discounts be applied to software licenses in the same way that small businesses are offered relief on business rates?

5. Does utilising unlicensed software, by some practices, give an unfair advantage and the ability to undercut fees in the competitive architectural market place?

The software that we utilise daily as professionals in Architectural Technology is an essential part of our toolkit and without it we would be un able to compete with our piers. It is easy to criticise the large organisations in any industry and use terms such as 'profiteering' and 'bullying' or to play down the severity of the issue by comparing the downloading of unlicensed software to downloading the latest film. The fact remains that these software organisations are providing us with the evolution in technology through millions of pounds spent on research and development to provide us with the toolkits to evolve within ourselves and as an industry as a whole.

As members of the Chartered Institute of Architectural Technologists and being in the industry of creation we should be fully aware of, and have absolute adherence to copyright law.

To discuss this article or anything else in AT, *please visit the member forums at www.ciat.org.uk or Linkedin.*

Time for a U turn on U-values?

How much do you value U-values? Greater competence is needed when it comes to U-value performance, says Paul Forrester ACIAT.

Let's start with a quiz. You're detailing a domestic timber frame building. The wall is a conventional design that has to meet a U-value of 0.22 W/m^{2}K, so you check the literature of your preferred insulation manufacturer and copy the thicknesses specified.

The Building Control Officer (BCO), however, wants proof that the insulation specification will do what is claimed. You get a written U-value calculation from the manufacturer, which seems to do the trick because the BCO starts pestering you for water usage calculations instead. Here, then, are your questions:

- How much trust do you place in the calculation provided?
- Will the various materials perform as claimed, and as expected?
- How confident are you that the BCO could read the calculation?
- Did the BCO read it correctly?
- How much do you trust the contractors on site?
- Will they build the wall how you and the manufacturer expect?

How much confidence do you have in your responses to these questions? More or less than you expected?

Why I'm asking

For two years, I've been a person who does those calculations. Every day I speak to architects, contractors, builder's merchants, BCOs and the public about insulation. Some people have a good level of knowledge; some don't but are happy to learn. Some people simply aren't interested and just want an answer. Then there are people – often better educated than you'd expect – who think insulation is magic and the answer to all their bad detailing.

For ten years prior to that I was an Architectural Technology professional, working on domestic projects and specifying insulation thicknesses based on manufacturer information and calculations. My interest, like the people I speak to now, was finding the thinnest insulation to obtain the best U-value in any given situation. As long as the manufacturer said it met the U-value, I gave little thought to realities like what the contractor might buy instead, or how the product would be installed.

Competence is a preference

If you do think about those realities then you are my hero and can stop reading now. Our customers, however, have requested 64% more calculations in 2013 than in 2012, so there's still plenty of faith being put into what we send out. People rarely ask about a calculation – unless it doesn't meet an expected target, of course.

Once a figure is put on paper and issued we essentially lose control of it, but it practically becomes gospel! In an effort to improve the quality of U-value calculations being sent out, the British Board of Agrement (BBA) and the Thermal Insulation Manufacturers and Suppliers Association (TIMSA) set up a competency scheme.

Membership is voluntary and subject to regular audit, and I believe it to be a good thing. In fact, I'd like to see the scheme made compulsory and more rigorous. That way, calculations might eventually become a statement of what is likely to be built rather than a statement of what might be achieved if everything is perfect (which, of course, it never is). That's not to say calculations are a free-for-all, despite the competition that naturally exists between manufacturers. The scheme requires reference to various standards, including a document called BRE 443 (2006). It's free to download and worth a few minutes of anyone's time to help understand the factors taken into account when a calculation is requested.

People rarely ask about a calculation unless it doesn't meet an expected target

Prior to switching career, I understood little more than calculations being a series of layers. I'd never heard of BRE 443, nor suspected there was a need for a competency scheme. Does it matter to you if a calculation is labelled with a scheme logo?

Model behaviour

Occasionally a construction arises that is too complex to be properly modelled by our software. We might give approximate advice, but we also make clear that joints or fixings or certain materials can't be fully accounted for. It's unlikely such a calculation would be formally issued, but similar can happen even with simple constructions.

We are rarely provided with all the necessary information, though we try to obtain it. When we clarify assumptions, it's impossible to know whether, say, a designer feeds those assumptions back into their design. For example, if you ask what thickness cavity wall insulation is needed, do you know the wall ties that will be used? If not, will you make sure they match what's been factored in? Or are you happy to accept an extra 10 or 20mm insulation to cover the worst case? Another

example: until I started this job, I didn't have to think about the emissivity of foil facings and their impact on U-values. How many people – architects, BCOs, customers – could recognise the inclusion of a low-emissivity cavity in a calculation? How many would question why two calculations might use different values for similar cavities?

Mind the gap

There's one big reason I think the content of U-value calculations should be demystified, and that is the performance gap. Buildings constructed on site don't achieve the performance levels determined on paper. Whether it's poor workmanship and site supervision, bad product substitutions, or low standards of knowledge and advice, our built environment isn't meeting expected heat loss standards.

That means greater demand on heating systems and increased cost to the user. The scale of the discrepancy is probably worse than you imagine – the startling truth is that average heat loss from new buildings is far in excess of even the requirements of Approved Document L 2006! With a new Part L coming into force in 2014, and the Government sticking to an increasingly unlikely target of zero carbon housing in 2016, it makes you wonder whether residential development will ever live up to our expectations. Will 'as-designed' ever reflect what 'as-built' can actually achieve?

The future

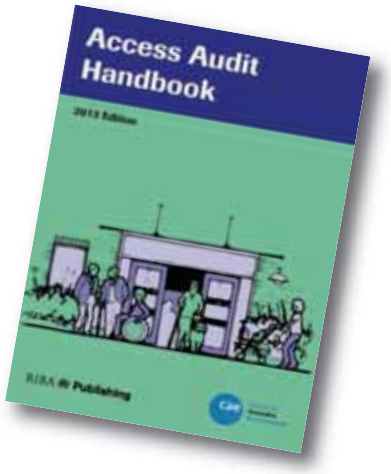
Performance gap issues won't disappear overnight, and transition arrangements mean large housing plots will continue being built to old regulations. Issues like that can't be solved by U-values alone, or whole-building assessments like SAP. Wider ranging factors come into play, such as geography and climate. Exposure on one site can cause a building to perform differently to its neighbour half a mile down the road. Research is ongoing as to how these influences can be accurately accounted for at design stage – new correction factors for U-values; amendments to SAP to reflect site locations; lab testing of products supplemented by in-situ testing.

Any or all of these could happen. What we can be certain of is that getting to grips with as-built performance will take some time. A change of mindset is required, and that will also take time. For now, I believe we could all do each other a favour by being more realistic about our built environment.

Too many people do things as easily and cheaply as possible, only for the end user to pay more in increased running costs. Are those the values we really want to work to? If we're serious about reducing the performance gap, maybe we could start by all being a little more competent when it comes to the U-value performance we seek at design stage.

Paul Forrester ACIAT is a BBA /TIMSA Competent Person CS/1003-1 and Technical Services Officer for Recticel Insulation, Stoke-on-Trent.

Access Audit Handbook



By Alison Grant, Centre for Accessible Environments

The *Access Audit Handbook (AAH)* 2013 edition is intended to be used in conjunction with the Centre for Accessible Environments/RIBA Publishing guide *Designing for Accessibility* (2012 Edition). The checklists in the *AAH* provide a useful starting point when commencing an audit and are coordinated with the technical guidance in *Designing for Accessibility.*

The structure of the book is as follows:

1. Introduction
2. Access Audits
3. Audit Methodology
4. Report Writing
5. Access audit extract
6. Case Study (Hebden Bridge Town Hall)
7. Access audit checklists

An access audit in summary is a means of assessing features of an environment (building or external area) and services in terms of accessibility.

The Equality Act 2010 replaced existing anti-discriminating legislation with a single Act and applies in England, Scotland and Wales. The Act protects people from discrimination on a range of grounds, which it refers to as 'protected characteristics'. These characteristics include age, disability, pregnancy and maternity, race, religion, sex and sexual orientation.

The most interesting and relevant chapters of the handbook for Architectural Technology professionals are the 'Audit Methodology', 'Report Writing' and 'Access Audit Checklists'. The Audit Methodology chapter makes good use of photographs to show good and bad practice for access. Examples include public transport links, car parking and seating, pedestrian routes, external ramps and steps, doors, surfaces/visual contrast, sanitary facilities, signs, acoustics, lighting, building management and means of escape.

This chapter then goes onto explain the survey equipment necessary for checking the correct installation for steps, ramps, door pressure levels and light.

The chapter then goes into detail about the observational assessment and shows how to ensure an adequate degree of visual contrast between adjacent surfaces or fixtures and fittings by simply converting a coloured photo into black and white or greyscale.

Lighting levels, acoustics and wayfinding are also discussed. This data also needs to be suitably recorded so the methodology explains how checklists, pre-prepared tables (template), ratings and information technology are used to log the information for use within the report writing stage.

Finally this chapter raises the importance of user participation in understanding the environment. The chapter closes with the building management itself,which can have a significant effect on how the building environment operates.

The report writing chapter has useful guidance and templates for what should be within an access audit report. The report can also contain images which will assist with any recommendations made within it. The example reports and final case study are useful sources of information and show the report format in practice on a real life project.

The final chapter sets out a checklist for the access audit, this is most useful to ensure your own template includes the necessary points for the audit.

In summary the book is presented and laid out clearly, with good use of example photographs and large font size throughout the handbook for ease of reading. Being a 'handbook' it would have been better if it came in a hardback as it is a useful resource and would likely be taken to site for reference.

RIBA Publishing
ISBN 978 1 85946 492 2
£49.99

Review by Michael Greve MCIAT

Volume Editor: Odgers, D.
Series Editors: Martin, B., Wood, C.
Ashgate Publishing 2013
ISBN 13: 9780754645658
308 pages £65.00

Concrete English Heritage Practical Building Conservation series

The debates concerning the aesthetic qualities of twentieth century architecture are gradually diminishing in their vitriol and polarity in much the same way that the perceptions of the qualities of Victorian architecture evolved from loathing into admiration.

There is an increasing appreciation of the historical significance of buildings and sculpture from the previous century, many of which are either constructed wholly from concrete, or have significant sections fabricated in the material. If we assume that these assets are to become as revered as their predecessors, the understanding of the composition, deterioration and methods of repair of concrete will become as important to the architectural conservation practitioner as the repair techniques of more traditional building materials.

The latest volume of English Heritage's Practical Building Conservation series is another entirely new volume and dedicated to this developing new subject. Like buildings constructed from traditional materials, some concrete buildings have been carefully constructed and detailed while others, through economy, lack of craftsmanship or poor

Conservation Basics

English Heritage Practical Building Conservation series

The past few issues of *AT* have contained reviews of the updated versions of English Heritage's Practical Building Conservation series, first published over thirty years ago, expanded and developed into comprehensive new volumes, or materials previously shoehorned together rightfully given a volume in their own right. This volume marks the first real departure from the original format and breaks new ground in the PBC series.

The title begs the question, 'Why dedicate a whole volume to such a topic? The anticipated audience of the previous volumes is surely aimed at the building professionals involved in historic building conservation and in no need of basic information.'

While an easy assumption to make, sometimes it is necessary to remind ourselves that every practitioner has had to learn their profession when embarking upon their career paths, and so do the next generation. Indeed, there is no point where one's learning is complete, and the most experienced professional would benefit from perusing its pages to ensure that they are aware of the way that approaches have changed over their careers. Additionally, with the large number of architectural/building conservation courses being taught across the country, a single volume introduction where the major issues in the field are brought together makes a useful addition to college and university libraries.

The format follows the other volumes in clearly laid out chapters which describe the development of conservation, the legislative framework and guidelines that protect and control development and repair to historic buildings, maintenance and repair regimes, and their impact on sustaining and building's significance, methods of survey and investigation which help inform the practitioner in the historical development of a building, its construction and condition.

The most experienced professional would benefit from perusing its pages

The final chapter deals with emergency planning, risk management and preparing for unforeseen catastrophe. Like the other volumes, this is generously illustrated, with informative case study examples, and useful bibliographies which form a good foundation from which to develop further research.

Students of conservation, trustees and custodians of heritage assets and any practice for whom architectural conservation is a cornerstone of their business, with an interest in maintaining high standards, and a commitment to developing new talent should have a copy of this book on their shelves.

Review by Paul Travis MCIAT

Volume Editor: McCaig, I.
Series Editors: Martin, B., Wood, C.
Ashgate Publishing, Farnham, 2013
ISBN 13: 9780754645511 382pp £65.00

The history and development of the material is described followed by a description of the main methods of decay

materials have resulted in decay and partial failure. While these are similarities that concrete may share with other materials, it has distinct challenges in its repair and discrete changes in repair philosophy that do not occur elsewhere. Similarly, the development of this relatively new field has not allowed for a suitable time for monitoring, review and assessment of the efficacy of many repair strategies.

The format of the book is the same as the others in the series: the history and development of the material is described, followed by a description of the main methods of decay and deterioration, and how these materials should be assessed.

The methods currently used in the repair and treatment of damage are described, illustrated graphically by useful drawings and photographs, and practically with case studies. The volume ends, as always, with guidance on care and maintenance, the essential chapter for ensuring that buildings maintain their integrity and significance.

Although a relatively slim volume, this could be one of the most important additions to the PBC series, and one which will develop our understanding of concrete as a material, not only of its requirements for repair, but also the way we detail, specify and supervise its use.

Review by Paul Travis MCIAT

Handing over the baton

Colin Orr PPCIAT MCIAT looks back at his two years in office as President. Interview by Adam Endacott, Public Relations Director.

What do you feel was your greatest achievement as President?
I think my greatest achievement was to refocus the Institute's vision for the future. As I stated at the commencement of my term as President with the Proverb: 'Where there is no vision, the people perish'. I would like to think that CIAT has a distinct vision which was set out when we launched the Strategy in October. Overseeing the work of the new membership structure and its implementation was equally rewarding.

What has been one of the biggest challenges for you?
The biggest challenge for me was being able to manage change, particularly the change within the demographics of the membership and the arena that Architectural Technology sits within. I think also the continued good use of social media and remaining proactive across the mediums.

Was there a particular highlight whilst President?
Without a doubt, it has to be the AGM weekend in Belfast with the largest attended Dinner Dance, I believe, in a signature building in the heart of Northern Ireland. The Region made the Institute very proud.

If you had your time over again as President, is there anything you would do differently?
I don't think that I would do anything differently. You have to be flexible to the needs and demands of society, government and, of course, the members at the time and I would like to think that I achieved this in the two years.

You have to be flexible to the needs and demands of society

Will you miss being President?
Yes I will – it has been a big part of my life over the past two years. I won't miss the late nights though and nor will my wife Val!

What advice would you give Karl Grace as the next President?
I think the one piece of advice I would like to give Karl is that being President is an important role and as the figurehead of the Institute he has to remember that he is representing the members and this is how we are judged and perceived externally.

What will you fill your spare time with now?
Spare time, what's that? It's something that I don't have much of. I shan't be twiddling my thumbs though with a growing family and developing my academic qualifications. There will still be 24 hours in day!

Is there anything else you would like to add?
I'd just like to add that the membership is very vibrant, dynamic, diverse and enthusiastic and with the challenges ahead we shouldn't lose focus of schemes and initiatives that have been set in place by Past Presidents. It's my great pleasure to hand over the baton to Karl to continue moving the Institute forward.

I'd like to take this opportunity to say a thank you to all members of Central Office staff for their continued support and direction under the great leadership of Francesca Berriman MBE. Finally, I'd also like to thank my wife and daughters for all their support and love along with family, friends and of course my employers, the University of Wolverhampton.

Meet the President

Karl Grace PCIAT took over as President in November. Here he outlines his vision for the future of the Institute during his tenure.

It is an honour and privilege to become President of one's own professional body. This must be the pinnacle for any member. It is a position which makes me extremely proud and one I look forward to with excitement, anticipation and commitment.

As President I look forward to leading the Institute over the next two years. There is always much work to do, much of which will fall within the corporate plan which is the how we will achieve the strategic plan as issued to all members in autumn 2013.

We need to drive forward CIAT as a progressive and proactive Institute

Our recognition and profile has never been higher; but there is always room for greater awareness of our discipline. For Architectural Technology to become well known by all members of the public requires all of us to promote the brand and this is one of my ambitions during my presidency – to encourage members to promote Architectural Technology at a local level. This will be one of my main themes during my Region/Centre tour.

Don't forget, if you come across any instance where you feel our qualification is being questioned, it is more likely due to lack of awareness; but please let Central Office staff know – send in evidence so we can take the necessary action.

I am also delighted that the international work continues with the approval of the establishment of the Australasia Centre. I am also aware that there are other overseas Centres being considered and will be presented to the Executive Board. The support mechanism and method of operation for these Centres is being developed to ensure that there is value to such enterprise.

The Institute is also moving into the next stage of its life – in 2015 it turns 50 which is another milestone and I am thrilled that I will be your President during this occasion; the launch of these celebrations will be in Nottingham at the 2014 AGM, an opportunity for further promotion of the Institute and discipline together with the achievements of its members since the Institute's formation in 1965.

After the formal proceedings of the AGM, I very much look forward to working with all members, the Regions and Centres. Together with Council and Executive Board we need to drive forward CIAT as a progressive and proactive Institute.

Karl Grace will be visiting the Regions and Centres throughout 2014. Check www.ciat.org.uk for details.

Off the Record

Continuing his series of interviews with members, James Banks, Membership Director, spoke to Mark Wildish MCIAT about his progress to Chartered Membership via Professional Assessment rather than the POP Record.

What is your career background?

I was only 12 years old when I decided that I wanted a career in architecture and upon leaving secondary education I joined a small architectural practice JBA in my home town of Shipston-on-Stour. For the first three years I attended college on day release on an NVQ Construction Technology course, but as the practice became ever busier my employer stopped funding my course and asked me to work full time.

With the prospect of more money and an evaluation of what the course was teaching me, in relation to the predominantly planning and building regulations work the practice was involved with, I decided to commit my career path to the practice.

Why did you decide to join the Institute?

Despite a couple of job offers I stayed with the practice for 17 years, but during the last two or three years at the practice I was regretting my lack of academic acknowledgement and not having gained different experiences even though I really enjoyed where I worked. I discovered that I could attain accreditation through CIAT by compiling a Professional and Occupational Performance (POP) Record. In 2008 my employer retired and sold the business, so my business partner and I started our own practice, Chance and Wildish Architecture.

You joined the Institute in 2007, yet have only recently progressed to Chartered status. Why was this?

When I first joined as a profile candidate I had every intention of quickly working through the POP Record and attaining professionally qualified Architectural Technician status within six months, then Chartered Architectural Technologist status in due course. However, working long hours in an excessively busy practice left little time (outside family life) to get it completed.

Moreover, in 2007 the JBA office was flooded and the following year was spent rebuilding the business before it was sold. Then I left to start my own business, and especially during hard economic times, this meant that completing my POP Record was a low priority.

Why did you decide to progress via the Professional Assessment route and not the POP Record?

I found that when I looked at the MCIAT POP Record after setting up in private practice there were units where I had a lot of experience, but others where I knew I would have to produce a case study following research because I only had knowledge and no project experience. The broad spectrum of competencies required to complete the MCIAT POP Record was not relevant to my area of practice and therefore some units may not have demonstrated my competence, experience and professionalism to the Institute as I would have wanted.

When I was told I had passed the interview it was an amazing feeling

On a personal level I primarily wanted recognition of my experience and not a generalised description of what a Chartered Architectural Technologist broadly does. So when it came to my attention that the Institute was developing a new qualifying process and that it would be based on an applicant's professional experience, I attended a Membership Futures Taskforce meeting, where the Group discussed and agreed the framework for the MCIAT Professional Assessment. As an active member of the Taskforce I was asked to apply for the Professional Assessment as part of the testing and piloting phase.

How did you complete the application?

I first decided to abandon all the work that I had previously done for my POP Record as that was trying to achieve compliance with set parameters, whereas the self assessment process was a case of reflection and critical analysis.

For me I found this a much more enjoyable and rewarding approach to demonstrating my abilities and unlike the POP Record once I started I had an urge to keep working towards completion. Effectively producing a snapshot of my career also felt like a worthwhile project and in running my own architectural

practice has in fact turned out to be a useful source of reference, as I can use it to demonstrate my abilities to clients . It also makes good 'coffee table' reading.

In my experience the 'what *do* you do' approach is easier to write about than the 'what *can* you do' approach of the POP Record.

How long did it take you to complete the Professional Assessment?

From start to finish it took me six weeks working at home and in the office, on and off. Had I worked on it solidly I estimate it would have taken two to three weeks.

Who was your referee?

My colleague and friend Robert Yates, who is a qualified Quantity Surveyor (MRICS). I asked him because he knew what I had done throughout my career and could vouch for my experience and professionalism.

How was the Member Panel Assessment review process?

Being one of the 'guinea pigs', upon completion of my Professional Assessment documentation I posted the whole application to CIAT for review. Thankfully, following assessment of my application I was informed that I had passed and was recommended to sit my Professional Assessment Interview.

What was your experience of the Professional Assessment Interview?

I love London and so travelling up from the countryside felt like an excursion and certainly added to the overall anticipation of the experience. The three members of the interview panel were professional in their approach asking fairly direct questions about what I did and testing my knowledge base, but at the same time they made me feel relaxed and kept proceedings very friendly.

At the end of the interview when I was called back into the room to be told that I had passed the interview, it was an amazing feeling – to have bestowed on me such accreditation by three professionals whom I had only met for the first time. I finally had the sense of placing and acknowledgement for my career that I had been seeking.

Do you have any advice for potential applicants?

If I could pass on any advice for this process it would be to be yourself, play on your strengths but be honest with your limitations and have some passion about what you do.

Are you proactively involved with CIAT? If so, in what capacity?

I am not currently involved with any CIAT activities, although I did sit on an Institute Accreditation Panel for Wolverhampton University and would be happy to partake in such activities again.

The 'what *do* you do' approach is easier to write about than the 'what *can* you do' approach of the POP Record

How has the MCIAT qualification benefited you?

The qualification I feel has helped add weight and conviction to any documentation/reports that I produce and it offers reassurance to potential clients and fellow professionals that as a Registered Practice and a Chartered Member I must adhere to the Code of Conduct and CIAT Requirements for a Registered Practice. Most of all it gives me confidence and acknowledgement which is of enormous encouragement when running my own architectural practice.

Mark Wildish MCIAT is a principal of Chance and Wildish Architecture of Stratford-upon-Avon, Warwickshire.

To find out more about membership, contact James Banks, Membership Director on +44 (0)20 7278 2206. Email james@ciat.org.uk. The Membership Department holds regular Membership Progression sessions in venues across the United Kingdom.

Providing advice or services?

Members offering and/or providing architectural advice or services to the public must comply with the Code of Conduct. Graham Chalkley, Assistant Practice Director, explains.

This article aims to provide clarity to members on their obligations in respect of architectural services and advice to ensure their compliance with the Institute's Code of Conduct and, where necessary, to carry adequate professional indemnity insurance.

Excerpts are included from the *Code of Conduct and Requirements for CIAT Registered Practices* (reference should be made to these documents, both of which are available at www.ciat.org.uk).

Code of Conduct Clause 3: Practice Registration

a) Only Chartered Members and profile candidates may act as principals and offer and/or provide services directly to a client.

b) Chartered Members and profile candidates acting as principals shall:
i) obtain and maintain formal registration of their practice with the Institute; and
ii) comply with the 'Requirements for CIAT Registered Practices' as published by the Institute from time to time.

Some examples of where Clause 3 applies are as follows:

- you are running your own practice as a sole practitioner;
- you are an equity partner or associate;
- you are a director with an interest in the company;
- you are a Limited Liability Partnership member;
- you are employed, but undertake commissions or offer/provide services in your own time;
- you are offering/providing services directly to clients whether paid or not (and whether retired or not);
- you are giving guidance or services to friends, family or others, again whether paid or not and even when retired.

The above is not an exhaustive list.

The Institute has various grades of membership; the following designations and interpretations apply:

MCIAT = Chartered Architectural Technologist
TCIAT = Technician member (not permitted to practise on their own account)
ACIAT = Associate member (not permitted to practise on their own account)
No designation = profile candidate (may practise but make no reference to CIAT)
No designation = student member (not permitted to practise on their own account)

The Institute recognises that some who apply for Chartered Membership of the Institute may already be in business on their own account. Their entry to membership must be via the profile candidate route.

Only accurate and factual representation of the practice's substance, skills and expertise must be used

Until the profile candidate progression route is successfully concluded (with the applicant's acceptance as a Chartered Member) the applicant must not:

a) use any designated suffix letters (ACIAT/TCIAT/MCIAT);
b) use the Institute's logo;
c) advertise or promote their membership of the Institute as a professional qualification in their business dealings; and
d) refer in any way to being a 'member' of the Institute.

The Institute has placed a duty on any member undertaking practice in any form to obtain its agreement to the practice form, style and description that it is intending to adopt before commencing practice. Members should therefore submit their proof proposals for business note headings, visiting cards, website layout and drawing title blocks etc to the Practice Department for consideration. After any directions have been complied with, the member shall supply the Institute with the final copy for its records. Any subsequent variation shall be submitted to the Practice Department for consideration.

Members must write to the Institute to advise of any changes and should the business change inasmuch as partnerships etc dissolving, request, if necessary, a suitable time limit to change their business stationery to reflect the change and portray a true image of the company. The *Requirements for Registered Practices* must be referred to for this.

The Institute recognises the qualifications of membership of other institutions as appropriate primary descriptions of a professional discipline; in which case, the requirements for the use of a description appropriate to membership of CIAT may be varied. Only accurate and factual representation of the practice's substance, skills and expertise must be used. Descriptions which may be construed as misrepresentative or may potentially draw the Institute into disrepute shall not be used.
If you are unclear as to your status you should contact the Practice Department.

Code of Conduct Clause 5: Professional Indemnity Insurance
Chartered Members or profile candidates who:
a) provide services directly to a client shall obtain and maintain adequate professional indemnity insurance;
b) are principals of a practice providing services directly to a client shall ensure

that adequate professional indemnity insurance is obtained and maintained by that practice;

c) were principals but who have ceased to provide services directly to clients shall take all reasonable steps to either:
i) ensure that adequate run off professional indemnity insurance cover is effected; or
ii) discharge their duty whilst protecting the interest of their client;

d) are or were principals shall on request by the Institute provide the necessary evidence to demonstrate compliance with clauses 5a) – 5c) above.

Clause 5a) applies to all Chartered Members or profile candidates. Any service or advice given is subject to duty of care principles regardless of who it is provided to. The member is therefore liable for that service. Consequently, professional indemnity insurance is essential.

- A client shall be any person or body who commissions a service or services from a member.

- Adequacy and length of PII is to be determined by the member and on advice from his insurers.

There are obvious advantages of protecting yourself, your practice and reassuring your clients. To demonstrate the importance of members complying with this clause, the Institute's Council approved its policing. It is therefore necessary for every member providing services directly to clients to provide evidence of current professional indemnity insurance showing an expiry date.

Professional indemnity insurance (PII) is a cover against allegations of breach of duty of care. Should legal liabilities be established against a professional, this will, subject to terms and conditions, pay for the damages together with any costs awarded against the defendant.

PII must be in place to ensure your compliance with the Code of Conduct. Many clients require a designer to have PII in place for their protection. Lending organisations will require evidence of PII before releasing funds. It is also in place to protect your practice and to assist with risk management issues.

The Institute recognises the fact that members may need some assistance in obtaining the right policy. As a result of this, the Institute has a scheme for members through the brokers, McParland Finn. This scheme has been thoroughly investigated and is thought to be flexible enough to satisfy the members' requirements. In addition, the scheme offers excellent support assistance together with a free legal helpline and collateral warranty vetting system. McParland Finn also offers a run-off policy for members insuring with them.

To obtain a quotation and further advice, please contact McParland Finn direct on 0161 236 2532. NB: members are free to insure with whomever they choose.

Gold achievers

The Gold Award recognises Chartered Members who have demonstrated an outstanding service or commitment to the Institute, industry or Region/Centre. This year the recipients are:

Brian Davies MCIAT

For dedicated service to the Republic of Ireland Centre

Brian has been a stalwart and devoted member of the Republic of Ireland Centre since its establishment in 1987. He has tirelessly promoted the discipline of Architectural Technology through his position as Membership Officer for the Centre and through his work in the built environment sector. He has encouraged and assisted both students and potential members to join CIAT and progress their POP Records. As a member in private practice, he has worked to enhance the status and reputation of the discipline of Architectural Technology and CIAT.

Uel Marcus MCIAT

For dedicated service to the Northern Ireland Region

Uel has continuously sought to proudly promote CIAT and its values in the areas of practice and education with passion and drive in the Northern Ireland Region. He got involved with the Regional Committee shortly after becoming a member, later becoming Regional Secretary. He has demonstrated commitment and consistency as well as being a highly valued colleague to his fellow Committee members.

Stephen Nicholls MCIAT

For dedicated service to the North West Region

Stephen has, during his 32 years with the Institute, devoted a considerable amount of time to CIAT to develop and enhance the Institute through involvement at Regional level and through involvement as Vice-President Innovation and Research where he did not shrink away from expressing his views for the benefit of the Institute and its members. He has been, and remains, committed to CIAT and his enthusiasm and commitment are infectious and have spread far and wide.

Andrew Scott MCIAT

For dedicated service to the Institute and Projects Taskforce

Andrew is nominated for his continual and ongoing commitment and dedicated service to the Institute and the discipline. Whether at a Regional or national level, Andrew has always given 100% of his time to represent the Architectural Technology discipline and most particularly in his service as Vice-President Technical. In this role, he was able to ensure change and development in all matters technical which affect the members at large.

NEW MEMBERS

We are delighted to congratulate the following individuals on obtaining Chartered Membership:

David Abbey	Rep of Ireland
Silvio Alves	Channel Is
Andrew Beeston	West Midlands
Michael Benjamin	Central
Dharm Bhullar	Gr London
Jason Brittin	South East
Matthew Budge	Channel Is
Simon Burgess	West Midlands
John Casselden	Wessex
Carl Collins	Central
Andrew Corsham	East Midlands
Christy Crowley	Rep of Ireland
Solomon Dangana	Western
Anthony Day	East Midlands
Matthew De Garis	Channel Is
Joe Fallon	Rep of Ireland
Jonathan France	Yorkshire
Bendict Gavaghan	Yorkshire
Alexander Hardwell	Wales
Niall Healy	Gr London
Oliver Henshall	West Midlands
Robert Howell	Wales
Robert James	Wales
Adrian Jordan	West Midlands
Ian Kendrick	UAE
John Kirby	Rep of Ireland
Christophe Krief	Rep of Ireland
Nicholas Moore	Yorkshire
Frank Murray	Rep of Ireland
Graham North	West Midlands
Elizabeth Olubaju	East Anglia
James O'Mahony	Rep of Ireland
Eoin O'Reilly	Rep of Ireland
Dalton Pitters	South East
Malcolm Randell	Western
John Rennie	New Zealand
Matthew Robertshaw	Yorkshire
Jacob Russell	East Anglia
Christopher Senior	East Anglia
Simon Steers	Central
Christopher Stokes	Wessex
Sara Thomas	Central
Jamie Vadis	South East
Christopher Van Essen	Western
Lee Wardman	Yorkshire
Genevieve Wells	South East
Stuart Woodward	Western

Congratulations to the following on re-entry as a Chartered Member:

Paul McLean	N Ireland

Congratulations to the following on obtaining Technician membership:

Andrew Downer	Western
Andrew Malam	Western

Congratulations to the following on becoming an Accredited Conservationist:

Desmond Cairns	N Ireland

Honorary membership for David Cracknell

Honorary Membership of CIAT is the greatest Award that the Institute can bestow on a figure for their work of distinction or outstanding service to the Institute. In the Institute's lifetime, Honorary Membership has only been awarded to 24 recipients with its first presented in 1977 to Thomas Lilley.

At its meeting on 7 September, Council unanimously agreed that Honorary Membership be awarded to David Cracknell MCIAT for 'his immeasurable work and influence for, and on behalf of, the education of those within Architectural Technology and his immense and significant contribution to the Institute's membership qualifying process'.

The full citation read:

'Throughout his working career (from which he has now retired, June 2013), David has served his professional body consistently since joining in 1972, becoming a pivotal member of the Membership and Education Committee (since 1976), as a Regional Councillor (for the East Anglia Region), member of the Examinations Board and as Chair of the Standards Group, amongst other roles.

In 1984 he was the Chair and co-author of the book, *Architectural Technology – The Constructive Link* which was a monumental and fundamental document for the Institute and he also contributed to the first QAA Benchmark Statement for Architectural Technology and its subsequent reviews. He has enjoyed a good working relationship with all those involved within education and membership over the years within the Institute.

From working in architectural practice, moving into further education as a senior college lecturer to then working with, and leading, the Construction Industry Standing Conference and finally for the last 14 years working as Director of Skills and Lifelong Learning at the Construction Industry Council (CIC), David has supported and contributed significantly to upholding the high standards of competence, both academically and performance based, for the skills base within Architectural Technology as well as across the built environment sector.

David Cracknell HonMCIAT MCIAT
He has served CIAT since 1972.

Through his immense work in the development, identification and classification of National Occupational Standards (NOS) for the sector, David has made a significant contribution to the discipline of Architectural Technology in the field of vocational education and training. The NOS as a tool for the industry remain the constant reference point for the built environment and these ensure that standards are maintained and retained within the qualifying process for Architectural Technology. This work ensured that the Institute had a rigorous and exemplar qualifying system for membership which was essential in successfully applying for, and ultimately achieving, the Grant of a Royal Charter.

Many will recall the sheets and sheets of papers that David would reproduce from his case and armed with a pencil he would painstakingly map the MCIAT and TCIAT qualifications to the NOS. Left without the sterling work and personality of David, the Institute would not have such a strong and rigorous qualifying system.

Without the drive, skills and character of David, the Institute would not be where it is today and the discipline not as respected as it is now. His work has ensured that the Institute remains exclusive yet inclusive.'

David will formally receive his Honorary Membership certificate at the Awards Luncheon in January 2014.

Without the drive, skills and character of David, the Institute would not be where it is today

In Memoriam

We regret to announce the deaths of the following members:

Nigel Dell MCIAT, South East
Patrick Donnelly MCIAT, Northern Ireland
Joanne Ervine MCIAT, North West Region
Stanley Hammersley MCIAT, West Midlands
Arthur Lappage Hon MCIAT MCIAT* South East
Martin Ockendon ACIAT, East Anglia
Vincent Senatore MCIAT, East Anglia
Kenneth Wilson ACIAT, Northern Ireland

* a full obituary will follow in the next issue.

The CIAT weekly Ebulletin

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NEWS IN BRIEF

Planning for flooding

The Department of the Environment (Northern Ireland) has published for consultation the Revised Draft Planning Policy Statement (PPS) 15 'Planning and Flood Risk'. The PPS aims to prevent future development that may be at risk from flooding or that may increase the risk of flooding elsewhere.

The consultation papers are available on the Planning NI Website at www.planningni.gov.uk. and the consultation period will end on 10 January 2014.

In order that a unified response from CIAT may be made, any member who wishes to comment should contact Graham Chalkley, Assistant Practice Director, by 6 January 2014. Email graham@ciat.org.uk

Building Control CPD

Yorkshire Region members are invited to this CPD event on 14 January from Assent Building Control. It will be held at the Holiday Inn, Wakefield, 7.00 for 7:30pm. To book please contact the Regional CPD Officer, Mark Kennett. Tel 01423 531183. Email: markk@wkpartnership.co.uk

Part L training

The Department for Communities and Local Government (DCLG) has announced the Part L 2014 transitional provisions (England). In response to this announcement Local Authority Building Control (LABC) will be running a series of seminars on the changes.

The seminars will take place in various locations until February 2014.

To find out more, visit www.labc.uk.com/labctraining

CIAT Strategy 2013-18

In October CIAT launched its Strategy for the next five years. To position the Institute for the challenging and exciting times for those joining, studying and practising Architectural Technology, Council approved this five year Strategy. The Strategy is set within the context of globalisation and economic, social, environmental, technological, sustainable and environmental factors and policies.

It also takes account of the impact of the next generation of IT and Building Information Modelling (BIM) on the design, construction and use of buildings and the ever-increasing need to up-skill in a fast changing world.

A Corporate Plan will implement the Strategic Aims and during the five year period there will be mechanisms for measuring the impact, volume and reach of the projects to be undertaken under each Aim.

All members should have received a copy of the Strategy with the previous issue of *AT* magazine. If you did not receive this and would like a printed version please email info@ciat.org.uk to request a copy.

A Corporate Plan will implement the Strategic Aims

CIAT's Awards Luncheon takes place at London's Freemason's Hall on 29 January 2014.

Promote your product

CIAT is holding its Awards Luncheon in London in January 2014. This is a great chance for companies to meet the industry's decision makers. This prestigious event will involve the presentation of the Awards mentioned in this issue and will bring together over 150 members and built environment professionals. This is an ideal opportunity to specifically promote your product or service to specifiers.

To find out more, please contact Hugh Morrison, Communications Director. Email hugh@ciat.org.uk. Tel. +44(0) 3286 2201

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