

AT

ARCHITECTURAL TECHNOLOGY

The new Old Town Hall

Radical refurbishment
in Merthyr



Chartered Institute of
Architectural Technologists

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Cover

This issue's cover shows the proposed exterior for the Old Town Hall, Merthyr Tydfil, which is undergoing a conversion into a community facility containing a theatre, dance studio and galleries. Paul Berry MCIAT, Senior Maintenance Officer at Merthyr Tydfil Housing Association Ltd, reports on the project on page 16.

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End of the beginning...

This summer the CIAT-Accredited universities held their end-of-year exhibitions featuring a wealth of talent from students who will form the future of the discipline of Architectural Technology. The course leaders report on what happened – and who to watch.



Anglia Ruskin University

This year saw a well attended end-of-year exhibition and guests included students past and present, Regional practitioners, representatives of local councils and institutional bodies such as CIAT and RIBA.

The East Anglia Regional Committee held their AGM before the exhibition so that members could be in attendance for the opening night and view the exhibited work.

The exhibition's opening evening was also planned to coincide with Anglia Ruskin's visiting External Examiners, of which Kathy Thurman MCIAT completed her fourth and final

year with the university. All staff from Anglia Ruskin Architecture and Planning programme team expressed their gratitude to Kathy for her excellent contribution and advice over the years and for being our critical friend.

There was also the introduction of student prizes for most improved student in each year, including several highly commended students who showed real improvement and effort on their part throughout the year.

All in all it was an enjoyable evening that celebrated everybody's hard work, especially the students' work over the year.

By Richard Longstaff MCIAT

University of Bolton

Celebrating students' achievement and motivating them to produce a higher calibre of work was a key part of Bolton's degree show. However, another aspect of the show was to engage with potential local employers and the show created an excellent environment for this purpose and proved very successful.

The majority of the final year Architectural Technology students worked on the rebuilding of a local primary school located on the edge of Bolton town centre with the capacity for some 560 pupils. Earlier this year a competition project for developing a new university overseas campus was initiated and brought to

the students' attention. Six of our Architectural Technology students from the second and final years took part, creating a design and a walkthrough of the project. The winner was Gareth Fallow.

Final level Architectural Technology students worked in an interdisciplinary team on a project which was based on a real site provided by Bolton Metropolitan Borough Council. Students decided on the function and use of the proposed development choosing from a range of options based on sustainable development, and then worked with their fellow team members to develop their proposals.

By Nooshin Akrami ACIAT.

University of Brighton

This year's Architectural Technology final year students worked on a scheme to redevelop the existing West Pier site in Brighton into a state-of-the-art hotel and leisure resort.

The year-long design project commenced with students carrying out a thorough appraisal and feasibility studies; conducting detailed surveys, analysing the site, context, planning restrictions etc. From this, they developed a detailed design brief and proposed cost and fees to the client. With the support of the teaching team as well as guest practitioners, students then prepared concept designs and Planning Approval documentation.

At the degree show, students presented their final schemes, with particular attention to technological innovation, buildability and sustainability – the latter in the broadest sense. Our industry partners including the team from Cityzen Design LLP in Brighton and Micheal Greve MCIAT (Education Officer for CIAT South East Region) were on hand to assess the work. *By Kemi Adeyeye ACIAT*

Huddersfield University

Some outstanding Architectural Technology work was presented on the opening night of the End of Year Show. With the recent appointment of sustainability expert Professor Adrian Pitts as Head of Department, the Architectural Technology course is expected to flourish.

The work of the students was presented at the show on computers as 'rolling presentations' from each of the design projects with a medley of the best work from each year projected on walls in the CAD Suite. The commitment to sustainability was expressed by an entirely electronic submission across the entire course and a deliberate decision was made not to generate any flat-work.

Some of the best work on display belonged to prize winners Danny Bramwell and Francis Smith, but strong work was also produced by second year students especially by Toby Rainland, Tom Graham and Paul Gooding.

This year's final year schemes were based on a new engineering complex on the University Campus and a large scale urban renewal project for a local site currently used as a car park.

The distinctive Huddersfield flavour of creative designs based on sensible sustainable technology were very much in evidence. The refurbishment schemes were also carried out very effectively reflecting the commitment of the course to building pathology and building conservation. *By Charles Hippisley-Cox.*

Below and right: the Huddersfield University End of Year Show. Opposite: A University of Brighton student's proposal for the West Pier.

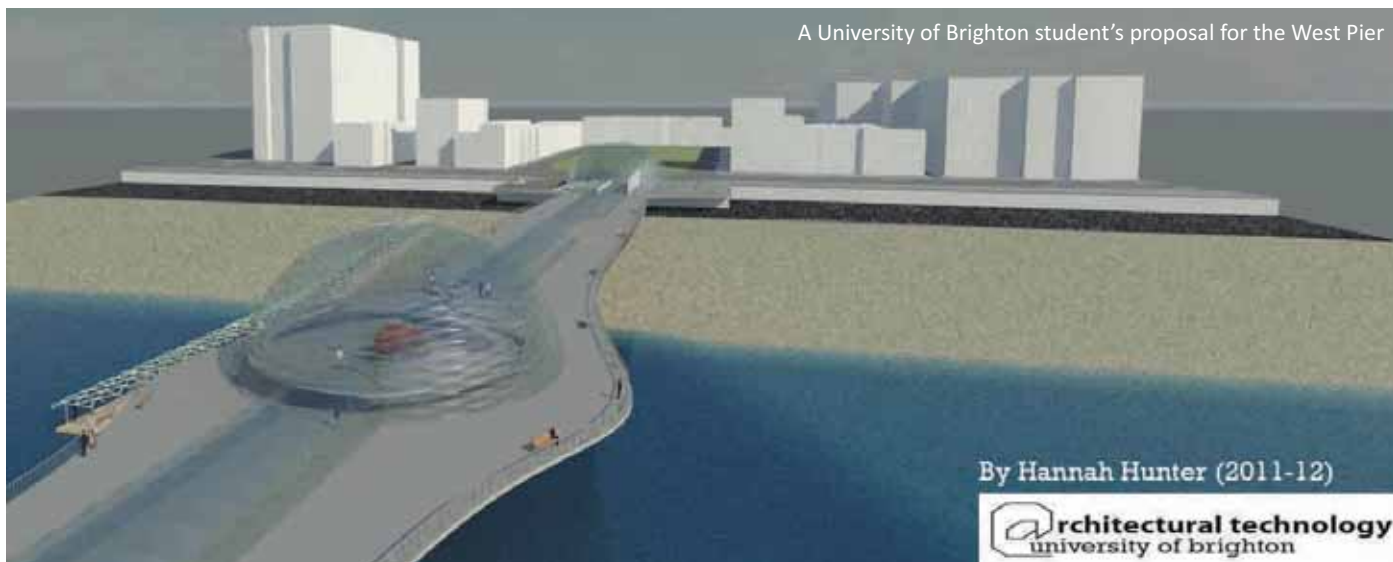
Plymouth University

This year's Faculty of Arts, School of Architecture, Design and Environment Degree show work at Plymouth opened in the Roland Levinsky Building on 16 June.

The larger intake for the current first year of the course has given us a great group of students who rapidly got to grips with the demands of their first term in university. The second term's project work, a live project for a Sustainable Classroom with the King Edward VI Community College in Totnes, provided a very dramatic site right next to the Dart river weir, which stimulated some very imaginative and well developed project designs and presentations.

Particularly notable was the work of Kai Edwards and Chris Milnes, our first part time student on the course here in Plymouth. The development of graphic skills in the first year design work this year has *(cont'd overleaf)*





been supported by one of our past Master of Architecture students, Gareth Thyer.

Second year stars included Jacob Handford and Tim Simmonds, part of the interdisciplinary design project teams who took awards in the industry sponsored and judged presentations on 23 May.

This year saw a range of very interesting studies of schools with a wide variety of innovative construction and design approaches, with particularly useful critical studies by Gabriella Barr of the Open Academy in Norwich.

The second term Ridgeway School project provided a range of challenges and a very wide range of propositions for the improvement of the school's buildings and site strategy. Particularly successful propositions included the system building proposal from Darren Edge (an ambitious approach to the issues of wider School refurbishment needs) which won the Design prize; and by Abigail Cochran who won the CIAT Outstanding Student Award.

By Mhairi Mackie

University of Ulster

Former Irish rugby international Dr Nigel Carr and legendary motorcycle road racer Phillip McCallen were the guests of honour at the Architectural Technology and Management End of Year Show and Awards Evening which took place at the University of Ulster's Jordanstown Campus.

The show, which featured work by both Year 2 and graduating students from the BSc Hons Architectural Technology and Management course, provided students with the chance to showcase their aesthetical design skills and technical excellence and offered prospective employers, industry professionals and members of the public an excellent opportunity to identify emerging talent.

The End of Year Show provided the students with an ideal platform to demonstrate their excellence in the field of Architectural Technology. There was a huge interest in the event from members of the Institute, which is indicative of the high regard in which the university's graduates are held within the industry.

The evening began with a Regional CPD event by the main sponsors of the evening RTU and Heating and Energy Solutions. The topic was hemihydrate liquid floor screeds, underfloor heating design and associated heating and energy design solutions.

The winning students included:

•William Holland: The Architectural Design Partnership Top First Year Award

•Russell Liggett, Craig Wylie and Paul Hughes: The Keystone Group Architectural Technology and Management Year 2 Prize

•Nathan McKillion: Design of Hypothetical Ulster Sports Museum, Highly Commended

•Cara Loughran, David Heaney and Robert O'Reilly: Design of Hypothetical Ulster Sports Museum, Commended

•Chris McIvor: Hays Placement Prize

•Jonathan Greig: CIAT Region 15 Award for Technical Excellence in Design (Winner)

•Ciaran McBennett and William Campbell: CIAT Region 15 Award for Technical Excellence in Design (Commended)

•Ciaran McBennett: CIAT Outstanding Graduating Student Award

•Mark Gribben: Course Director's Prize for Special Achievement

By David Comisky MCIAT

Below: Ulster Award winners from left: Cara Loughran, Robert O'Reilly, David Heaney and Nathan McKillion.





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Elections will be held this September in Council for those nominated to serve as President Elect, Vice President Technical and Honorary Treasurer. **Hugh Morrison**, Communications Director, put some important questions about the Institute and industry to the nominees.

President Elect

Karl Grace MCIAT



How do you feel about your nomination?

It is a great honour to be nominated for the post of President Elect and to be given the opportunity to once again serve CIAT, this time in the most prestigious of roles. If I am perfectly honest, it is not a post that I have ever seen myself in, especially when I look back at some of the Past Presidents that I have served with during my time as Honorary Secretary of BIAT and CIAT. I see my biggest challenge as matching the high standards that they have set.

What were those standards?

Each one of them brought something to the table that enhanced the Institute's performance, profile or standing in the profession. Their contribution enables CIAT to proudly hold its head up high within the construction industry as a recognised Institute, one that is approached as a leader, rather than a follower. I know that they will say 'it was a team effort' but that's their modesty, because I know how hard they worked to achieve the end result.

What will you bring to the role?

My answer is first and foremost 'passion'. I have a passion to see CIAT continue its growth in stature. A lot of work was done in preparing our Institute for Chartership and a lot of work has been done since, consolidating our position. We still need to do more, and will always need to do more to keep our Institute fit to meet the challenges of an ever-changing profession.

What do you hope to achieve in office?

Right now I only have ideas that need to be thought out in more detail before being made public and presented as workable agenda. I can tell you that since stepping down as Honorary Secretary I have had time to monitor and take part in some of the discussions on the web, especially those on Linked In and I can see that there are subjects that need to be addressed, and with the ever stronger links with other professional institutes like the RIBA, RICS etc, maybe now is the time to start addressing some of those matters.

What issues is the Institute facing?

I am aware that there are still some issues surrounding the understanding of the discipline and the Chartered Architectural Technologist and Architectural Technician recognition that CIAT continues to address. Having been aware and sometimes involved with these issues of profile and public awareness in my previous post, I know how disappointing it has been to our members and staff that our efforts are not always successful. I can't say that I will resolve them during my time in office, but I can

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We still need to do more, and will always need to do more to keep our Institute fit to meet the challenges of an ever-changing profession’

promise to continue pursuing our goal and attempting to achieve the desired result for our members. If successful, then maybe I will have justified the faith that those that have nominated and supported me have in my ability to take on this most honoured of posts. So it is with some fear and trepidation that I embark on the task of seeking support for my election campaign. My hope is that I can achieve something that will be of significance for the Institute and for its members. I am also aware that during my time as President (if elected), we will be celebrating the Institute's fiftieth birthday. That will be another significant milestone and another opportunity to promote the Institute, the discipline and members, and I look forward to being able to celebrate that event as your President.

Vice President Technical

Kevin Crawford MCIAT



What is your background?

I have been actively involved with the Institute at Regional and National level since I joined in 1991, I am married with three children and live in East Renfrewshire. I have been running my own architectural practice since the start of 2009. Previously, I was employed in the house building sector for ten years and in private practice for more than ten years prior to that.

The practice has an extremely varied workload and provides a full range of architectural services to both private and commercial clients, specialising in energy efficient detailing and thermal modelling to ensure that the most efficient and economical solution is made available.

Tell us about your previous work for CIAT.

In 2011, I was elected as the Councillor for Scotland West Region (13) for a second time following my tenure as the Region's Councillor between 1998 and 2005. Subsequently, I was elected in September 2011 as Council Trustee on the Executive Board.

During both tenures as Regional Councillor I have taken, and still take, an active role at Council and Committee level, and sat on various Committees and Taskforces with the purpose of promoting the discipline of Architectural Technology and CIAT, and ensuring that all members get the recognition they deserve. Two of the most notable Committees that I have had the honour of serving on are Conduct Committee and Technical Committee, which has given me a good understanding of how the Institute works and the most effective methods of progression



In the current climate it is critical that we promote Architectural Technology'

What would your main aims be if elected?

If I were to be successful and elected to the post of Vice-President Technical, I would strive to ensure that the sterling work of the Taskforces under the Practice and Technical Department is maintained and that the Institute continues to occupy its rightful place at the forefront of all matters relating to Architectural Technology.

The profile of CIAT within the construction industry, and in turn its members, is highly regarded and well thought of, often being reported externally as an Institute which 'punches well above its weight'. This is an accolade which is well deserved, but also comes with an element of responsibility.

It is our responsibility as members, it being our Institute, to ensure that this reputation is preserved and communicated to all. As Vice-President Technical, I would be responsible for a number of key initiatives, such as the Technical Taskforces, representation of the Institute externally in relation to changes and advancement in industry, as well as overseeing

the Institute's Technical Excellence and Alan King Awards which demonstrate year on year the levels of technical excellence that is being produced by practices of all types. These awards are open to industry and past recipients' projects show that CIAT is recognised not only to qualify Chartered Architectural Technologists, but also to judge technical excellence across professions in construction.

How can the Institute raise its profile?

In the current climate it is critical that we promote Architectural Technology and ensure that construction professionals and the general public understand and recognise the role we all play. In relation to technical matters, this is currently carried out by self-promotion and with support from CIAT. Within CIAT, and more specifically the Taskforces, which have proved since their inception to be one of the Institute's most valuable assets, there is a core group of like-minded professional members.

These members include senior figures such as Past Presidents and Vice Presidents, ensuring that we retain expertise and experience, (as well as younger members to provide balance), and industry experts working together to provide input on a wide variety of issues from BIM to responding to government consultations on forthcoming policies and regulations.

It is important to retain Chartered Architectural Technologists' inclusion in activities undertaken within industry, ensuring active participation, and that members' views are heard. The information is managed and disseminated by the Practice Department, which provides a service in my view that is unsurpassed by any other professional body.

Should members with specialisms have a greater role to play?

As Vice-President Technical, one of my key roles would be to encourage members who have specialisms in the field of Architectural Technology, be it in conservation, sustainability or many of the different fields which we as Architectural Technologists work in, to become actively involved; to stand up and promote what we do. The Institute will only grow if its members want it to and this will, in turn, improve its profile and that of the membership.

I would also collaborate closely with other officers of the Institute, primarily through Executive Board, but most notably the Vice-President Practice, whose role, although distinct from the Vice-President Technical, is inextricably linked. It is important for the Institute to retain its strength in the unity of dedicated members for the common goal of furthering the Institute and raising awareness within industry whilst preserving its good reputation by quality representation.

Vice President Technical

Bill Johnston MCIAT



Tell us about your professional and Institute background.

My initial aspiration was simply to work in a creative capacity using CAD, within the construction industry. I have since been employed in a variety of roles and, as a Chartered Architectural Technologist, have had responsibility for all aspects relating to the initial design and subsequent development of construction projects. Experience has been gained in the domestic housing sector, and also within the health, education, conservation and retail sectors.

Following many years as a student member and then Associate, I became Chartered in 2004. Desiring a more involved role, I was accepted onto the Regional Committee in 2006. Until recently, I had assumed the role of Regional Education Officer. Currently I am active involved in the Regional Sub-Committee, assisting with the organisation of the 2012 AGM, to be held in Belfast.

What skills can you bring to the role?

Through both my professional working career and extensive studies, I have obtained experience in many different roles, in both the private and public sectors. One result of this was an expanding interest in building conservation, with subsequent post-graduate study leading to the recognition of the unique challenges required in that sector. Completion of studies relating to universal accessibility provided further expertise, in an area of ever increasing importance for society. Further training in respect of energy performance certification has presented me with an understanding in an area of great significance for the industry and nation, if not the whole planet!

What are the challenges facing the Institute?

The current financial climate is a major influence on all industry, increasingly so on the construction sector. Many currently employed within the building industry may be forced to move into other sectors. This will present resource problems when the industry rejuvenates in the future. CIAT must be at the forefront of initiatives to improve the employability of members in an ever changing industry.

Improvements in health, welfare and environmental standards, within a progressive society, continue to raise challenges for all commercial sectors. The Institute needs to support its members, to obtain the skills and experience to assist society with the rise to achieving these improved standards. CIAT must continue to identify areas where members' can excel with the skills and experience they possess.

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CIAT must be at the forefront of initiatives to improve the employability of members'

How will you help CIAT get through the increasing difficulties in the economy, particularly in the construction industry?

Direct engagement with various stakeholders, also seeking the revitalisation of the industry, will be necessary. Communication with all parties, public and private organisations, deemed to be able to assist in the regeneration of the construction sector must be entered into. New methods of working and new partnerships will need to be examined in order to strengthen the industry for future challenges. A strong construction industry, with a capable and committed workforce, will present a better environment for a successful construction industry, and all professional institutes, including CIAT.

What would you like to achieve in office?

An area where I would aim to realise success is the continual education of the construction industry and general public as a whole, raising the profile and the capabilities of CIAT and its members. Given the current state of the construction industry, identifying improvements for members in the employment market would also be an important area, through the use of new and innovative technology and

methodologies, such as BIM, CAD, etc. The identification of other areas where the technical skills of members can be seen to excel, within a developing construction industry, is also important.

Honorary Treasurer

Douglas Fewkes MCIAT



Tell us about your professional and academic background.

I am a Senior Project Manager within Estates at Coventry University, a role in title that I have held for three years. However I have been with Coventry University where I joined as a Senior Architectural Technician in 1990. During my time with the university I have been responsible for heading up a multitude of construction projects from refurbishments to new build activity. I'm currently undertaking the delivery of the university's capital projects developments including a £7m multi story car park and the most significant new addition to the campus, the new £55m Faculty of Engineering and Computing building.

Developing my academic qualifications has also become very important to me. Sitting back and relying upon the earliest qualifications gained to get me to the initial post at the University was not an option. Progressing to become a Full Member of BIAT in 2000 and then further enhancing my educational standing by conducting a part time Masters Degree graduating with an MSc in Project Management in 2010 from Coventry University has been crucial to my career development.

Playing my part in the Region's activities and promoting CIAT and Architectural Technology as a career path is also important to me. Putting back in to the Institute by assisting the AT course and students at Coventry University, CPD delivery and careers events in the Region are essential activities for the future of the Institute.

What are the main challenges facing the Institute?

The higher education sector has seen significant changes during my time with Coventry University. The construction industry has also faced some very significant challenges during this period and the current extended recession has significantly impacted on all of our membership profiles.

Whether sole practitioners, students, or those within larger organisations, like myself, job certainty is clearly a significant factor in our membership numbers. Recent membership figures and the work being undertaken by Prof Sam Allwinkle, clearly demonstrate that we (the Institute) have a number of issues to contend with in the coming years. Those of declining membership, a diverse age-demographic and the extended recession are all putting pressure on the Institute, and where the most effort must be concentrated if we are to grow.

How will you help CIAT face these challenges?

I have recognised the needs for change during my career, ensuring that I am best placed to respond to my changing environment. In the same way the Institute constantly needs to develop to ensure that it is in the right place with the right 'tools' to ensure that it can respond to the changing environments.

Working closely with each of the departments to ensure that they each have the right environment to respond to the pressures faced by the Institute is critical for its continued development. This, within the current fiscal constraints of the Institute, is essential for growth and during my tenure, ensuring that these environments are developed will be my key target whilst in the post.

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CPD delivery and careers events in the Region are essential activities for the future of the Institute’

Honorary Treasurer Robert Kay MBE PPBIAT MCIAT



Tell us about your professional and Institute background.

I became a Member of the Institute in 1968 but only really became involved in the Northern Ireland Region around 1985. I was elected Regional Councillor in 1987 and elected President of the Institute in 1990.

I was self-employed from 1975 having been employed straight after leaving school in 1958. I ran a small office from 1975 until my retirement from business in 2009. I keep in touch with the profession by acting as a consultant to the company which took over the business on my retirement.

As well as being a Chartered Member of CIAT I was also a Chartered Building Surveyor and Member of RICS. I have been a Director of ATSL (Architectural Technology Services Ltd, the services company of CIAT) since its formation, and a member of Finance Committee since 1996.

What skills can you bring to the role of Honorary Treasurer?

I have a wide range of experience in many aspects of the running of the Institute on a voluntary basis; from Regional Councillor in the early days through my Presidency in the 1990s, to being a Director of ATSL and a member of the Finance Committee. Running a small architectural and building surveying practice for over 15 years before becoming closely involved with the Institute gave me valuable experience in business management and accounting although on a much larger scale.

My involvement in the Church of Ireland both nationally in Dublin and in my local diocese in Northern Ireland has, over the last 20 years, considerably widened my experience of

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The Institute is required to progress and this will mean spending money’

finance on a much larger scale than that of the Institute, and I have found this invaluable when chairing discussions in finance meetings at Central Office.

What are the challenges facing the Institute?

Two of the main challenges facing the Institute are one, the high age profile of Chartered Members and two, the inability, at the moment, to convert student and Associate members to higher grades of membership.

How will you help CIAT get through the increasing difficulties in the economy, particularly in the construction industry?

The Institute continues to require steady leadership in all aspects of the running of the departments at Central Office – that is why I am allowing my name to go forward for this election and if successful to help guide the Council and Institute through the economy's difficulties during the next two years as Honorary Treasurer.

What would you like to achieve in office?

I would attempt to achieve, with the assistance of the Finance Committee and Council, the moving forward of the Institute both nationally and overseas. This would include the membership nationally receiving a continuing full service from City Road and overseas development pressing ahead at an increased rate.

All this is possible – we do have some reserves in the bank and Council in the past two years has authorised running our account in deficit (or using reserves) for projects to promote the Institute. We of course need to retain money for 'a rainy day' but at the same time the Institute is required to progress and this will mean spending money we do hold in the Bank.

I think I have the necessary experience in many aspects of the Institute that would help me to continue to advise on financial matters and in this continuing recession I would attempt to balance membership fee increases with the needs of all members of an Institute that is attaining more and more recognition each year.



Belfast 2012

You are invited to attend the AGM and President's Annual Dinner Dance in Belfast this November, in the city's Titanic centenary year.

This prestigious event in the CIAT calendar brings together in excess of 250 professionals and academics in Architectural Technology and the built environment from across the UK, Republic of Ireland and overseas — an ideal opportunity to meet fellow members and related professionals in the stunning surroundings of the Titanic Belfast Experience.

The programme

Friday 16 November: Members' Evening — an informal members only social event at the Europa Hotel, centred around City Hall and the Titanic Quarter.

Saturday 17 November: The AGM takes place during the day in the Europa Hotel in central Belfast. All members may attend the AGM (although only voting delegates may vote). A partners' tour will also take place. In the evening, the Titanic Belfast Experience is host to the splendour of the President's Annual Dinner Dance featuring the presentation of CIAT's Awards.

Book now

Tickets are now available for all events. Dinner Dance tickets are priced at £73.00. For more information and to book please contact Jan Deluxe at CIAT, 397 City Road, London, EC1V 1NH, UK. Tel. +44 (0)20 7278 2206 Fax +44 (0)20 7837 3194. Email: jan@ciat.org.uk

Corporate sponsorship

Sponsorship packages for the event start from £700 and can be tailor-made to suit your requirements. To book a sponsorship package or for a no-obligation discussion, please contact: Hugh Morrison, Communications Director. Tel. +44 (0)20 3286 2201. Email hugh@ciat.org.uk



Photo courtesy of Titanic Belfast

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Conservation Register



The Conservation Register identifies Chartered Architectural Technologists competent in the conservation of historical buildings and their surroundings as defined and recognised by the Edinburgh Group. Suitability for the Register is based upon a technical assessment of a candidate's portfolio followed by a formal interview. Applicants must be resident in the UK.

Application fee: £150.00 plus VAT.

Annual subscription: £50.00 plus VAT.

Subs year runs May-April; half year subs available to those joining after 1 November.

No additional joining fee for re-assessment after five years except if an interview is required in which case the fee is £100 (subject to change).

For further information please visit:

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Chartered Environmentalist



As a constituent body for the Society of the Environment, CIAT is able to award the Chartered Environmentalist qualification to its Chartered members. The Society for the Environment is the leading co-ordinating body in environmental matters and is a pre-eminent champion of a sustainable environment which has registered over 4800 Chartered Environmentalists (CEnv).

To be eligible to become a Chartered Environmentalist, applicants must be MCIAT and accrue a minimum of twelve units where 1 year of relevant academic experience = 2 units and/or 1 year of relevant professional/work experience = 1 unit. Applicants may be from any country.

Application fee: £200.00. Annual subscription: £85.00.

For further information please visit:

www.ciat.org.uk/en/members/specialist_registers/chartered_environmentalists/
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Fire doors: no easy way out

Nobody can afford to overlook their legal obligations when it comes to fire door specification. This briefing from Fireco examines the role of the fire door in risk assessment.

Escalating enforcement and prosecutions of individuals and businesses brought under the Regulatory Reform Fire Safety Order (RRFSO) with fines reaching in excess of £400,000 for breaches such as the failure to maintain structural fire precautions, inappropriate storage of hazardous cylinders and wedged open or defective fire doors, mean that now no one can afford to ignore their legal duties.

If you are designing a building or managing risk in premises, it's vital that you should re-examine the role of the fire door in your fire risk assessment.

Above all the duty of a fire door is to compartmentalise fire and, by restricting its spread, to extend the precious time needed for occupants to escape, and for damage to the building to be contained.

If a fire breaks out, and the integrity of any one of the fire door's components is compromised, then its role as a precision-engineered safety device can be weakened, if not fatally crippled. So for responsible fire safety management a good working knowledge of those component parts, including door closers, should be essential to carrying out your duties under fire legislation.

Don't test weakly

To understand a fire door's proper function you must not overlook any single element of a fire door-set, determining that each part is correctly certificated and compatible with any component assembled together by the manufacturer, specifier or installer.

Door closers, hinges, locks and latches fall into the category of essential ironmongery that holds the fire door in place or ensures its correct performance. They must therefore carry fire test evidence to show suitability for use on fire doors. In addition, even the weight and bulk of kick plates, escutcheons, door handles, (and panic exit devices) can affect the manufactured door's specified performance.

Fire safety management should always be certain that door-set certification includes

proof that a product has been EN fire tested and CE marked, as non-compliance with the UK Construction Products Regulations (CPR) is a criminal offence.

Do the footfall footwork

Before installation of fire doors, the environmental demands should be carefully assessed with a site survey, particularly when the door is to be placed in busy, high footfall locations. Conditions of use should be evaluated, taking care to assess door width, door weight and door fire resistance; and, dependent on traffic flow, whether a closer is to be pull- or push-side mounted, or whether a door is clockwise or anti-clockwise opening.

There are natural laws in the dynamics of crowd flow, and the establishing of such corridor lanes as a company rule, with the consequent controlled directional flow of building users with signage, clearly has a bearing on the safe operation of double-leaf fire doors.

New directions in self-closing devices

As Appendix B of Building Regulations Approved Document B makes clear, in describing installations in Buildings Other Than Dwelling Houses, all fire doors should be fitted with a self-closing device.

You'll be familiar with the principle types of self-closing mechanism:

Overhead manual door closers (without hold open) have the function of solely returning the door to a closed position using an internal force. They can also have adjustable capabilities, including latch action, back check, delayed action and closing speeds.

Retro-fit hold-open-closer conversion products can be added to a manual door closer so the door-set then has a function as a hold-open-closer. These are independent electro-magnet release units that are independently wired into the fire alarm system, which activates release of the door upon a fire alert. Manual door closer with hold open function shuts the door mechanically but has the option for a hold

open function with the arm. This is activated usually by pushing a button, which holds the door open. When the door needs to close again or act as a normal door closer the button can be reset manually.

Electromechanical/electromagnetic hold-open door closers have the characteristics of a door closer and a hold-open function, plus mains-connected wired-in integration to the fire alarm system control panel. The magnetised retainer releases the door upon alarm initiation.

Recently launched is a wireless, electrically powered free-swing door closer that's installed at the top of a fire door allowing users to hold fire doors open at any angle and automatically closing the door when the fire alarm sounds. This provides an economic simple, neat and unobtrusive solution that's easy to install in new buildings and retrofit. This new product, Freedor, is a free-swing door closer that listens for a fire alarm of 65dBA or above, verifying the alarm over a 14 second period, before releasing the fire door to prevent the spread of fire and smoke around the building.

Snag-free installation?

Instructions for fitting fire door-sets are precise and comprehensive, and comprise part of the fire door manufacturer's warranty. Many manufacturers warn that unless proper inspection procedures are in place, untrained installers could fail to follow the guidance for correct installation, which would void important warranties.

The UK is virtually alone in Europe in not having enforcement legislation covering the supply and installation of fire doors, though it is true that Building Regulations Approved Document B makes clear the guidance to be followed to implement safeguards in their installation. Appendix B of the Document also highlights that any test evidence used to substantiate the fire resistance rating of a fire door should be carefully checked to ensure that it adequately demonstrates compliance and is applicable to the complete installed assembly. Small differences in detail, including ironmongery, may significantly affect the rating. For extensive



information on all aspects of certificated fire doors and hardware visit www.bwf.org.uk/firedoors/

Also, readers should visit www.firecode.org.uk where they will find *Code of Practice: Hardware for Fire and Escape Doors* published by the Builders Hardware Industry Federation and Guild of Architectural Ironmongers. This handy publication lists all relevant European product standards that have been published as British Standards relating to door-sets, under which products successfully tested to them can be CE Marked. In addition, for metals doors, refer to the Door and Hardware Federation's *Code of Practice for Fire Resisting Metal Doorsets* at www.dhfonline.org.uk/publications.asp

For fire ratings of fire doors, Appendix B provides a table showing the minimum fire resistance of doors in terms of integrity (minutes) when tested to BS and relevant European standards. The most common doors are rated FD30 or FD60, which means they are fire doors rated to withstand exposure to a fire test for at least 30 minutes or 60 minutes. The

essential guidelines in this table explain fire door ratings for compartment walls and escape routes in a number of typical locations.

With regard to hazardous locations, it is recommended that doors to laboratories, or those in areas where hazardous items such as chemicals or highly combustible substances or flammable liquids pass through the doors regularly, are also provided with Vision Panels to reduce the possibility of an accident occurring when doors open on to these hazardous items.

Consideration also needs to be given to measures to prevent hazardous liquid spread through compartment doors, which can be accomplished using shallow curbs or drainage channels at doorways, or by relying on sloping floors and drainage around particular storage areas.

Inspection and maintenance routines

The RRFSO places responsibility for fire safety duties and general fire precautions on the building owner, occupier or employer, the

'Responsible Person' being the person as you might guess, ultimately responsible. Such responsibilities include inspection and maintenance routines in respect of fire doors and door-sets as complete assemblies.

The frequency of inspections is conditioned by location and scale of usage. The RRFSO sector guides include clear inspection frequency guidelines. These guides are available on the Government's CLG website.

Fire doors, therefore, must be periodically inspected to make sure they meet the same standards as when they were originally installed and commissioned.

Briefing prepared by Fireco, the UK's leading specialist in simple, effective services and solutions for fire safety management. Fireco are manufacturers of a wide range of simple, effective wireless fire safety solutions including Freedor, the world's first wireless, electrically powered free-swing door closer, and are fire safety consultants to a number of the UK's leading companies and organisations.

The new Old Town Hall

Paul Berry MCIAT, Senior Maintenance Officer at Merthyr Tydfil Housing Association Ltd, reports on the transformation of the Old Town Hall in Merthyr into a community centre with a variety of technologically advanced features.



The exterior before work began.

Standing like a decaying monolith, the Old Town Hall which dominates the center of Merthyr Tydfil is a testament to the importance that the region exerted over the UK during the industrial revolution and beyond, its coal and iron imported all over the world, fuelling growth and development.

The need for such materials has now disappeared, taking with it the huge numbers of jobs that were employed by heavy industry

but also great buildings such as The Old Town Hall which drove this economy forward are little more than pale shadows of their once former glory as the buildings original role has become redundant.

Development

Funding was provided from a variety of sources including The Welsh Government, Heritage Lottery Fund, the European Regional Development Fund, CADW with support also

from Merthyr Tydfil County Borough Council. Despite its considerable size, the building footprint does not lend itself to being a successful commercial development, with its large courtyard and generous circulation spaces, there is very little lettable floor area contained within the building. This was the reason that Merthyr Tydfil Housing Association was challenged with finding a use for the building, MTHA's passion for people and their environments. It was almost inevitable that

the building would be earmarked as a community facility containing a theatre, dance studio, recording studios as well a cafe and flexible gallery zones.

The Old Town Hall is a grade II* listed building and even though the Association has experience of conservation projects they needed to choose an architect whose passion and commitment would rival that of the Association. Austin-Smith: Lord were chosen to lead the design team, Project Director Ashley Davies was able to demonstrate a proven track record combined with fresh thinking on how an historic building could combine a sound business plan sensitive restoration coupled with increased thermal efficiency.

Austin-Smith: Lord developed a working partnership with the Building Research Establishment (BRE) with the specific aim of not only improving the thermal characteristics of the building but also to ensure that whatever improvements were incorporated had real substance and were not just 'green bling' – add ons aimed solely at improving the building's efficiency on paper only.

Many of the usual greener technologies were considered ranging from biomass boilers, photovoltaic cells, grey water harvesting and also increasing the insulation and mass of the external walls and roof. The BRE were able to steer the thinking away from bio mass as the storage of the fuel pellets would take up space from an already challenged business plan and the possibility of damp penetration would be an issue with the pellets swelling and potentially causing structural damage.

Bespoke issues

The BRE were also able to identify that there was a risk to the external brickwork by substantially increasing the insulation to the walls using a proprietary dry lining system. It was established that during a prior chemical washing process in 1974 the glaze to the bricks had been damaged and the surface had become both porous and pitted. The building now relied on heat escaping through the walls to reduce the amount of moisture retained within the fabric, if the water remained insitu then there was an increased risk of spalling.

The building was separated into five zones, dictated by orientation and exposure to the elements; this in turn would help decide what thickness of insulation could be accommodated. Steico, a wood fibre based insulative material was chosen, not only for its thermal properties but also its innate ability to allow moisture to permeate through a structure, this would give the performance required to increase longevity and reduce the need for future repairs. *(Continued overleaf).*

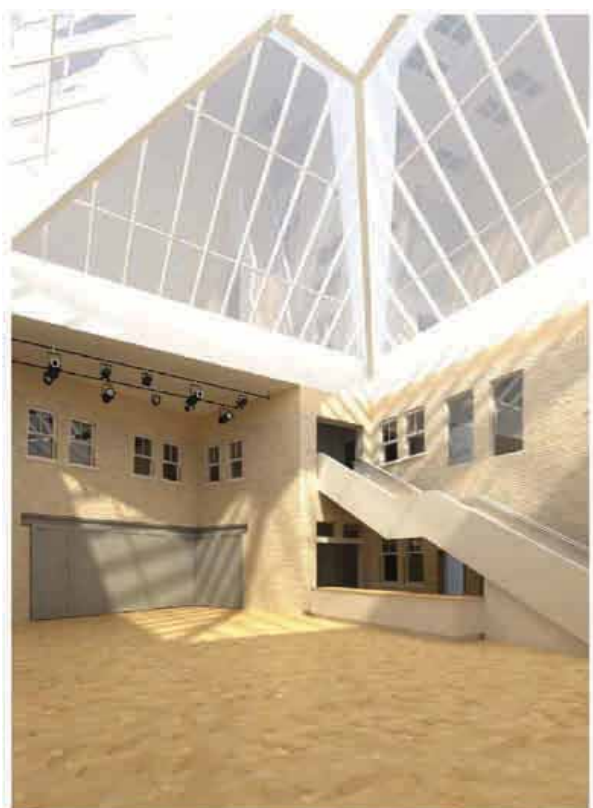


Demolition of courtyard toilet block.



Above: strip out of main hall. Below: installation of greywater tank.





Computer generated impression of the courtyard (left) and main hall

Another measure to be incorporated within the building was grey water recycling, due to its geographic location and height above sea level, rain is in abundance and not to make the most of this natural asset would be against the philosophy of the intended use of the building. A photovoltaic array was abandoned in favour of solar panels due the fact that the payback time would be excessive so the BRE advised against the inclusion of PV.

The main contractor for the project is Graham Construction, fresh from recent successful conservation projects such as Barnsley Hall and Ulster Hall they were able to demonstrate an understanding of the unique issues that a restoration on this scale would present.

Graham Construction were keen to embrace the thinking that underpinned the design teams desire that this building should reflect the original architect's vision, by sourcing a Heather Blue Welsh slate to replace the Spanish slate used to repair the roof in the 90s.

Graham's appreciated the difficulty that would be faced when painstakingly removing the sand cement mortar used in the repointing and replacing with lime based mortar. This repointing not only was in keeping with the building's original construction but the softer mortar allows movement to the benefit of the brickwork.

Lifecycle costing

As custodians of the building there was an emphasis shared with the designers on lifecycle costings, although no actual figures were required by the client we felt we should pass our experience onto the team, we understand what works in terms of fixtures and fittings and what can service the inevitable abuse by the public. As stated previously the external elements had been designed with longevity at the forefront of the collective design decision making.

The role of the Chartered Architectural Technologist

Being a Chartered Architectural Technologist I was asked if I would like some involvement with the project, having been both involved with conservation projects in the past and having also worked for the project architects I felt I had the breadth of experience to offer something to the project. I am currently the Clerk of Works for the scheme but my experience allows me to comment on drawings and specifications as well as offer advice to the contractor.

The future

The redevelopment of The Old Town Hall is unique in terms of what it is trying to achieve and the fact the project is being led by a housing association but as there are many such buildings scattered around the country I feel this will not be the last time a scheme of this

type will be led by a similar client. If a location has a thriving town centre and offers opportunities as a destination for entertainment then people will want to live within its environment. This makes solid business sense for any housing association or landlord and I fully anticipate this model being repeated but only time will tell.

Have you worked on a project that you would like to see featured in AT magazine?

Email details to editorial@ciat.org.uk

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Repointing not only was in keeping with the building's original construction but the softer mortar allows movement to the benefit of the brickwork’

Structural steel and fire

With every building facing the danger of fire, protecting a building's structural steelwork requires very careful consideration, as Sean Appleton of Promat explains.

The phrase 'structural steel' automatically implies a solid, dependable component that will help a building remain standing no matter what. This is perhaps one of the reasons behind the common misunderstanding that structural steel does not always require the same degree of fire protection as other methods of construction.

Unfortunately a major Spanish fire in 2005 highlighted that this is not the case. While undergoing work to upgrade its fire protection, Madrid's 32-storey Windsor Tower suffered what was described as the worst fire in the city's history. Yet although the top six floors of the gutted building caved in, the building itself did not collapse. Refurbishment work completed before the fire had included the installation of fire protection to structural steel work on lower floors where none had existed previously, and this prevented the building from collapsing.

Unlike their weakened counterparts, the load-bearing steel columns that had been protected did not deform in the heat and they helped the building remain standing. The dramatic difference between the two types of column provided a graphic illustration of the need for effective structural steel fire protection.

So what are the requirements for that protection? Resisting penetration by fire is an obvious one, along with the ability to prevent heat transfer and the ability to aid a building's resistance to collapse. With most types of protection able to deliver in these areas, selecting the most appropriate one can depend on the length of fire resistance required, usually up to 240 minutes, plus other factors such as the building's intended purpose and the budget available.

Spray-applied materials

There are three basic types of structural steel protection – boards, spray-applied coatings and thin-film intumescent – each with its own characteristics.

Although less popular in countries where wet weather conditions can cause problems during application, cementitious spray-applied coatings are regularly used in the Middle East market, where ambient temperatures allow them to cure rapidly. They typically feature a gypsum or cementitious base, with a vermiculite or mineral wool insulant added to provide the fire protection. Application costs are generally lower than boards or intumescent coatings, particularly at higher fire resistance periods, so spray-applied coatings offer a cost-effective and easily applied solution.

Another advantage is that multifaceted steel beams with complex geometry can be accom-



Above: a spray-applied coating

modated with ease. A spray-applied system can provide a nominal 10mm of cover to the inside of openings, which delivers the required protection but also allows services to be routed through the openings with ease. The nature of the spray application also allows the resulting coating to be checked easily to ensure that it meets the design specification.

Fire protection boards

Although more popular in European markets than the Middle East, fire protection boards do offer many variants to suit different applications. Some also offer surprising advantages, such as vermiculite-based boards which will dry out easily if they get wet. This makes them suitable for use on buildings where they might be left exposed to the elements before the external cladding is added.

Boards that offer a 'finished face' which can be decorated are sometimes used to clad steel columns that already have spray-coating or intumescent protection. This is simply to improve the final appearance of steel columns if they are to be left visible within the building.

Intumescent coatings

A third approach is to use thin-film intumescent coatings which are applied to the steelwork off-site. These incorporate a primer layer, a water- or solvent-based intumescent, plus a surface coat which protects against harmful environmental effects and provides a decorative finish. Heat causes the intumescent layer to rapidly increase to as much as 50 times its original thickness, so creating an insulating

char layer that protects the steelwork. With thin-film systems often less than 5 mm thick, the steelwork can also be left visible and incorporated as an interior design feature.

Other factors which can influence the selection of suitable protection include the building's construction method. A composite design with steel beams and concrete slabs will have greater fire-resistance than some other options and so might need less passive protection. Naturally there are many regulations, standards and codes of practice which can provide guidance in this sort of area, and these should be consulted by specifiers and system designers, who in the final analysis, simply cannot afford to make the wrong decision.

Fire protection product manufacturers are another valuable source of advice, especially those who can provide a full package of boards, spray-applied coatings and thin-film intumescent coatings which have been independently assessed and have third party certification. The guidance they can provide can be the key to creating the most effective and reliable solution, and that should be the aim for anyone tasked with designing fire protection for structural steel.

Promat is the only manufacturer able to provide board, cementitious coatings and Intumescent paint passive fire protection solutions which have been independently assessed and have third party certification. It is therefore in a unique position to provide the best structural steel protection advice for your project.
www.promat.co.uk

Determinations

The following is the text of an appeal against a refusal to relax Requirement M4 of the Building Regulations (England and Wales). Further determinations and appeals can be seen at www.communities.gov.uk

Building Act 1984 - Section 39

Appeal against refusal by the Borough Council to relax or dispense with requirement M4 (Sanitary conveniences in dwellings) in Part M (Access to and use of buildings) of Schedule 1, in relation to Regulation 4(3) of the Building Regulations 2010 (as amended) in respect of the relocation of a ground floor bathroom with a WC to a first floor.

The building work and appeal

(Sections 1 and 2 omitted as extraneous)

3. The papers submitted indicate that the building to which this appeal relates is a three storey, three bedroom, terraced Victorian dwelling. The ground floor has a living/reception room and kitchen with a small bathroom, with a WC therein, accessed directly from the kitchen. There are two bedrooms on the first floor with a further bedroom on the second floor, which you refer to as an 'attic space'. You explain that in its original form the property would not have had a ground floor bathroom but would have had an external WC located in a small outbuilding.

4. The proposed building work comprises internal alterations to relocate the ground floor bathroom, incorporating the WC, to first floor level to replace an existing bedroom and to create external door openings on the ground floor. This work was the subject of a building regulations full plans application which you deposited with the Council on 10 August 2011. In response to the Council's request for a WC to be maintained at ground floor level, you requested a relaxation which the Council refused on 25 August 2011 on the grounds that 'with careful design the proposed building work has the potential to comply with requirement M4 [of the Building Regulations] and that there are no extenuating circumstances which would justify a relaxation or dispensation'. It is

against this refusal that you have appealed to the Secretary of State.

5. The Council also subsequently rejected your full plans application on 6 October 2011 on the grounds that the plans were defective as insufficient information was provided to ascertain compliance with the Building Regulations.

The appellant's case

6. You explain that the reasons for your clients' proposal to move the ground floor bathroom with the WC to first floor level are to allow the existing kitchen to be adapted to accommodate a small eating area and to avoid what your clients consider to be an unacceptable situation where a bathroom facility is accessed directly from a food preparation area. You add that your clients are keen to provide modern facilities, which includes a bathroom with a WC on the first floor.

7. You argue that the alternative proposal by the Council to provide a cloakroom/WC at ground floor level in the cupboard beneath the existing stairway would lead to the loss of a valuable storage area and produce a very small and unusable facility. You say that the existing cupboard has a width of 700mm, length of 1900mm and a sloping ceiling rising from 750mm to 2200mm at its highest point, which in your view makes it impractical and unsuitable and would leave the occupants in a worse position than they are currently. You also acknowledge the Council's other suggested alternative that it would be possible to convert the existing bathroom, but state that this would not meet your clients' objectives and the reduced space would negate the case for doing the work.

8. You believe that the Council's demand for the retention of a ground floor WC is beyond the spirit of the guidance in Approved Doc-

ument M (Access to and use of buildings) and should be assessed against the original building which had no such facility. You consider that it is inappropriate to apply today's standards to a property that is well over 100 years old, as when the property was built bathrooms/sanitary appliances were very much a secondary consideration, and that home owners should not be prevented from making improvements to their home.

The Council's case

9. In its letter to you of 25 August 2011, the Council explained its reasons in detail for rejecting your clients' proposal to remove the existing WC on the ground floor of their property, having regard to the requirements of regulations 3(2) & (3) and 4(3) and Part M of Schedule 1 to the Building Regulations 2010, together with the guidance in Approved Document M.

10. The Council states that it has treated your request for a relaxation as a request to relax or dispense with requirement M4 of the Building Regulations and does not accept your arguments as valid reasons because:

- the original facilities met the minimum standards set out in the Building Regulations relating to the separation of food preparation from sanitary conveniences;
- the guidance in the revised Approved Document G (Sanitation, hot water safety and water efficiency - 2010 edition) now demonstrates that you can access a WC direct from a food preparation area if there is a hand wash basin within the room containing the WC;
- in the Council's view it is not impossible to incorporate a WC in the cupboard under the stairway with some storage space, while still maintaining the open plan kitchen/dining area on the ground floor with the bathroom on the first floor; another option suggested

by the Council would be to create a new cloakroom by incorporating the WC and hand wash basin in part of the area occupied by the existing bathroom on the ground floor.

The Secretary of State's consideration

11. The Secretary of State has given careful consideration to the particular circumstances of this case and the arguments presented by both parties. He notes that your clients' proposals, including the relocation of the existing bathroom/WC on the ground floor to the first floor of the dwelling, form part of a full plans application deposited with the Council and in this respect both parties have accepted that the proposed work is 'building work' as defined in regulation 3 of the Building Regulations 2010.

12. By virtue of regulation 4(1) the building work is required to be carried out so that it complies with the applicable requirements in Schedule 1 to the Building Regulations 2010. The Secretary of State observes that the Council has requested that a ground floor WC should be maintained and has treated your request for a relaxation in this regard as an application to relax or dispense with requirement M4 in Part M of Schedule 1.

13. Requirement M4 in Part M states that Reasonable provision shall be made in the entrance storey for sanitary conveniences...unless the entrance storey in the building (ie that containing the principal entrance) contains no habitable rooms which does not apply in this case. But the general Limits on application of Part M state that: The requirements of this Part do not apply to – (a) an extension of or material alteration of a dwelling;, so the building work itself in this case is not required to comply with the requirements of Part M.

14. However, regulation 4(3) of the Building Regulations 2010 further requires that:

Building work shall be carried out so that, after it has been completed -

- (a) any building which is extended or to which a material alteration is made; or
- (b) any building in, or in connection with, which a controlled service or fitting is provided, extended or materially altered; or
- (c) any controlled service or fitting,

complies with the applicable requirements of Schedule 1 or, where it did not comply with any such requirement, is no more unsatisfactory in relation to that requirement than before the work was carried out.

Therefore, although the building work itself is not required to comply with the requirements of Part M, regulation 4(3) requires that the building as a whole still has to comply with Part M, or comply as much as it currently does, after the work has been completed. In this case, your clients' proposal to relocate the only WC on the ground floor to the first floor will result in the building not complying with requirement M4 in Part M of Schedule 1, or being more unsatisfactory in relation to the requirement than before the building work was carried out. Accordingly, the Secretary of State regards your appeal as an appeal against the Council's refusal to relax or dispense requirement M4 in relation to regulation 4(3).

15. The Secretary of State appreciates your clients' desire for modern facilities and the reasons for wanting to relocate the bathroom with a WC on the ground floor to the first floor. He also notes that you have rejected the Council's alternative suggestions as impractical or unsuitable, which would provide for a WC to be retained on the ground floor and thereby potentially achieve compliance with the applicable requirements of the Building Regulations, including requirement M4.

16. Whilst a property of this age may not originally have had the provision of an internal WC on the ground floor as you suggest, over the lifetime of the dwelling alterations have taken place to accommodate such a facility which in turn has improved access to a sanitary convenience for occupants and/or visitors. As a result the Secretary of State is mindful that in the spirit of Part M consideration should be given to the impact that the removal of such provision could have on the mobility needs of not only current but future occupiers, and also occasional visitors who may have a temporary or permanent disability, as the Council has indicated to you.

17. The Secretary of State has given consideration to the arguments you have put forward for omitting the ground floor bathroom with a WC, but takes the view that individuals with mobility impairments should not be prevented from going about their affairs in

an independent manner and be put in an unnecessary position whereby in future they may have to be helped up or down a flight of stairs to reach a WC.

18. Notwithstanding the size constraints of the dwelling and having regard to the alternative suggestions made by the Council, the Secretary of State agrees with the Council that with careful design there is potential for the relocation or resizing of the existing WC on the ground floor, both of which would work towards your clients' objectives of providing modern facilities. Such an approach could also achieve a layout being no worse than the current situation in relation to sanitary conveniences and therefore satisfy requirement M4 in relation to regulation 4(3) of the Building Regulations. The Secretary of State considers that there appears to be no particular circumstances in this case to justify either relaxing or dispensing with requirement M4 in relation to regulation 4(3).

The Secretary of State's decision

19. With reference to his considerations above, the Secretary of State has concluded that it would not be appropriate to relax or dispense with requirement M4 (Sanitary conveniences in dwellings) in Part M (Access to and use of buildings) of Schedule 1, in relation to regulation 4(3) of the Building Regulations 2010 (as amended) in this case. Accordingly, he dismisses your appeal.

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individuals with mobility impairments should not be prevented from going about their affairs in an independent manner’

BIM in Ireland

The CITA (Construction IT Alliance) BIM Group aims to be the 'meeting place' for the discussion and development of BIM in Ireland. By **Ralph Montague**, Group Coordinator.

Established in August 2010, the CITA BIM Group on LinkedIn aimed to become 'the meeting place' for the discussion and development of BIM (Building Information Modelling) in Ireland. To date the group has developed an online following of over 1200 members, from a diverse range of disciplines and interests. We have also secured official representation from a number of key stakeholder organisations in construction, including CIAT, RIAI, CIBSE Ireland and CIOB Ireland.

We continue to invite other stakeholder organisations to participate in the discussion, and appoint an official representative to the group. In conjunction with the represented organisations, we are currently hosting a series of industry-wide discussion workshops in 2012, which aim to facilitate a high level discussion amongst the key stakeholders, addressing the immediate issues and obstacles to the adoption and implementation of BIM in Ireland (see www.cita.ie/bimworkshops).

We feel that these are issues that each organisation has to deal with, and we believe that it makes far more sense that the stakeholders work together to share the research workload and financial burden and to develop some collaborative thinking on the subject, rather than trying to do this autonomously. To date we have held five workshop meetings, with over 100 people in attendance at each. Recordings of these workshops are available online (see www.youtube.com/CITAEIN), and the recorded outcomes of the workshop discussions are available on CITA's website (www.cita.ie) and are also broadcast online.

The adoption of BIM by the construction industry here in Ireland has been slower than other markets. Prior to 2008, the industry in Ireland had an unprecedented boom, and the idea of any change in process was unthinkable. After 2008, the industry in Ireland had an enormous crash – construction output fell from €36billion a year to less than €8billion a year, and the thought of investing into BIM (hardware/software/training/standards/procedures) has been unthinkable for many. However, this group has begun to realise the potential benefits that BIM can bring to all sectors of the industry, and is working to promote its adoption.

The Irish construction industry is small, and therefore very agile, compared to other coun-

tries. We are able to change and adopt very quickly, provided we can get some consensus and collaborative thinking. The industry gained unprecedented experience in design and construction over the boom years, but that experience is quickly becoming fragmented and out-dated.

We believe the adoption of BIM presents an enormous opportunity for the Irish construction industry, not only to significantly reduce capital expenditure in local construction, and improve the process and performance outcomes of building, but also for the industry to

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BIM presents an enormous opportunity for the Irish construction industry’

become world-class in this process, and attract international business for professional and construction services. The UK government's announcement that BIM will become mandatory on public projects by 2016 presents an immediate opportunity for Irish 'BIM-capable' designers and contractors to provide services to the UK and other international markets.

The stakeholder organisations involved to date represent mainly the private sector, but a delegation from CITA recently presented to the Government Construction Contract Committee (GCCC), a group represented by a number of key government departments and bodies, such as finance, education, health and transport. It is hoped that these bodies will also choose to get involved in the work that the CITA BIM Group has started and promote the widespread adoption of BIM in Ireland.

If Ireland truly wants to become a 'smart economy', then our industry needs to quickly catch up and surpass what other markets are doing, regarding the adoption of modern processes and technology in construction. The efforts of this group are helping that happen, and we thank everyone who contributes to this effort.



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Group member bodies:

Chartered Institute of Architectural Technologists (www.ciat.org.uk)

Royal Institute of Architects of Ireland (www.riai.ie)

Society of Chartered Surveyors Ireland (www.scsi.ie)

Construction Industry Federation (www.cif.ie)

Association of Consulting Engineers of Ireland (www.acei.ie)

Engineers Ireland (www.engineersireland.ie)

Institution of Structural Engineers Ireland (iStructe) (www.istructe.ie)

Chartered Institution of Building Services Engineers Ireland (www.cibseireland.org)

Chartered Institute of Building Ireland (www.ciob.org.uk)

Chartered Institution of Civil Engineering Surveyors (www.cices.org)

Law Society of Ireland (www.lawsociety.ie)

Office of Public Works (OPW www.opw.ie)

Dublin Institute of Technology (DIT www.dit.ie)

Ralph Montague is an architect and Managing Partner at ArcDox, and Chairman of the RIAI Practice Committee for BIM.

Institute and industry news

CIAT and RICS sign Memorandum of Understanding

The Institute and the Royal Institution of Chartered Surveyors (RICS) have entered into a Memorandum of Understanding to co-operate on matters relating to Architectural Technology and surveying.

The objectives of the Memorandum are to:

- encourage a positive environment within which CIAT and RICS can work collaboratively;
- provide a basis for joint action in priority areas of common interest eg CPD, education, international, member services, professional services, conferences and training;
- Provide a mechanism at a senior level for continuing dialogues between CIAT and RICS.

Some of the key areas in which CIAT and RICS have agreed to work together are:

- encouraging collaboration of regional branches and CPD/networking events
- co-operating in international development;
- promoting membership of their respective Institutes where appropriate
- jointly undertake promotional communications and public relation campaigns to include exhibitions and relevant events;
- promoting their respective disciplines and careers at universities, colleges and career fairs;
- working to complement their respective efforts in seeking benefits for both parties when dealing with government(s) and other organisations

President Colin Orr said: 'The Institute has Memoranda of Understanding with both RIBA and CIOB and these have cemented our philosophy of working together as a team within the built environment and supporting those we serve. It is a great pleasure as President that we now formalise a similar working relationship with RICS, an equally respected sister institute within the sector.

'We continue to strive for professionalism and teamwork within the built environment and this ensures unity and the opportunity to co-operate in areas of common concern.'

Heidi Shankster, RICS Director of Member Products said 'We're really pleased to have entered into the agreement with CIAT. We are greatly looking forward to working closely with them in a number of areas which will prove very valuable to our members.'



The latest POP video...

Members who have not been able to go to a POP Record Workshop or who just want to improve their understanding of the POP Record process, can now access an online

film. The film was recorded at a recent POP Record Workshop and is presented by the Institute's Membership Director, James Banks. The film appears on CIAT's YouTube channel alongside others covering the whole qualifying process.

MBE for Chief Executive



Chief Executive Francesca Berriman has been awarded an MBE (Member of the British Empire) by HM the Queen for services to the Architectural Technology profession. This recognition reflects her significant contribution to the Institute, the discipline of Architectural Technology, and the built environment.

Francesca has been Chief Executive since 1995 and has worked within the Architectural Technology environment for over 20 years. Her achievements include leading the Institute to its award of the Royal Charter in 2005. She is also Vice Chairman for the Society of the Environment and was Vice Chairman for the Construction Industry Council (CIC), in which she is still actively involved.

Francesca said 'I am completely surprised by this honour and feel very humble indeed. This is a very proud moment not just for me, but much more importantly, for the Institute and the recognition of the discipline of Architectural Technology; this has been achieved working as a team of which I am just one member!' President Colin Orr said 'this is a true recognition of the sterling work that Francesca and the team, both members and staff, have given.'

Party Wall Packs

The Party Wall Etc Act 1996 is effective in England and Wales, and for some time the Institute has been producing notices in relation to the Party Wall Act as part of the suite of Contract Administration Forms in addition to its Information Sheets.

To assist its Chartered Members, the Institute has now produced a Party Wall Pack. The pack includes the following:

- The Party Wall Etc Act 1996 information sheet
- Section 1 – Notice of Intent to Build on Line of Junction
- Section 3 – Party Structure Notice
- Section 6 – Adjacent Excavation and Construction (3 or 6 metre notice)
- CIAT Model Award – Agreed Surveyor

This pack is available to Chartered Members only and costs £30 (inclusive of VAT). Please note that this is available in electronic format only. If you wish to purchase a copy of this pack, please contact practice@ciat.org.uk with payment details, membership number and email address.

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Schools Competition

A cracking design for the 'egg' house

The Institute recently held the CIAT Schools Competition, 'The Great Egg Challenge', to encourage school children to think about design and arrive at innovative design solutions for a sustainable and happy built environment. The brief was to design an egg-shaped house. The winner was Mercedesz Musincki from The Globe Academy in London. The judging panel were impressed by the careful consideration given to the orientation of the 'egg' and structure of the support. James Banks, Membership Director presented the winning prize on 16 July.

If you know anyone who would like to enter next year, please email membership@ciat.org.uk to register your interest.



The picture shows Miss Musincki with Deputy Headmaster Martin Willbourn (centre) and James Banks, Membership Director.

Belfast 2012

The Institute is holding its AGM and President's Annual Dinner Dance in Belfast on 16-17 November. **Be part of the event!**



To find out more visit:
www.ciat.org.uk/en/news_and_events/events.cfm/agmbel

Membership Futures: update

The Membership Futures project, which looks at the future of CIAT membership, formed a Membership Strands Working Group in June. The Group consists of professionals in varying spheres of Architectural Technology. The Group agreed to run trials of a less prescriptive and more time efficient qualifying mechanism on a selection of members. Chairman Sam Allwinkle PPBIAT MCIAT will present his findings on the project at the AGM in Belfast on 17 November.

Further insight into the Membership Futures work undertaken can be found in the 'members only forum' on the website.

2006 POP Records to be phased out

The 2006 POP Record is being phased out. If you have nominated yourself to complete the 2006 POP Record, you must ensure the signed off result schedule is submitted to the Institute with an up to date CV and £110 assessment fee by 30 November 2012. If the result schedule is not submitted by 30 November 2012, you will need to complete the 2010 POP Record.

If you have any queries about the phasing out, please contact Amina Khanum, Membership Administrator (amina@ciat.org.uk) or telephone the Membership Department on 020 7278 2206.

Membership news

New Members

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

020355 Thomas Biggin, Berkshire (Region 08)
019927 Tristan Bund, Oxfordshire (Region 08)
012389 Amit Chhatralia, Northamptonshire (Region 08)
021507 Ryan Cunliffe, Cheshire (Region 03)
023448 Joey Eastes, East Sussex (Region 10)
018841 Jairo Jimenez-Sanchez, Buckinghamshire (Region 08)
023730 Ian Marriott, Tyne and Wear (Region 01)
022527 Tom McEwen, Herefordshire (Region 05)
020729 Peter Mitchell, Cumbria (Region 01)
021143 Matthew Moss, Vale of Glamorgan (Region 16)
023033 Matthew Peake, Cumbria (Region 01)
021891 Lee Richards, Greater Manchester (Region 03)
034258 Angela Rossi, North Yorkshire (Region 02)
024340 Peter Sauro, Carmarthenshire (Region 16)
024133 Gary Richards, Lancashire (Region 03)

Congratulations to the following on obtaining Architectural Technician membership, TCIAT.

022080 Neil Dolley, Cornwall (Region 12)
026464 Daniel Long, Lancashire (Region 03)
021860 Kirsty McKenzie, Oxfordshire (Region 08)

We extend a warm welcome back to the following Chartered Members who have rejoined the Institute:

015619 John Healy, County Kerry (Centre 02)
008268 Derek Milroy, Highlands (Region 13)
011803 Paul Wiedeman, West Midlands (Region 05)

In memoriam

We regret to announce the deaths of the following members:

Peter Guy MCIAT, County Galway (Centre 02)
Graham Hilton MCIAT, Shropshire (Region 05)
Richard Prest MCIAT, North Yorkshire (Region 02)
Ronald Steward MCIAT, Surrey (Region 10)
Rodney Thorne MCIAT, Norwich (Region 07)
Kenneth Ward MCIAT, Devon (Region 12)

Membership statistics

Chartered	3260
Technician	70
Associate	2316
Profile	605
Student	2525
Honorary	17
Total	8793

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If not please email info@ciat.org.uk.

Region and Centre News

North West Region 03

Regional representatives were invited to attend a graduation reception and prize giving ceremony at Liverpool John Moore's University to present the Outstanding Graduating Student Award (Architectural Technology) to final year student Darren Campbell (below left, with John Williams MCIAT, Regional Assistant Secretary) on 10 July at the Britannia Adelphi Hotel in Liverpool. The event was also attended by other institutes including the RICS and CIOB together with local businesses.

The Committee are pleased that Nooshin Akrami, Senior Lecturer and Programme Leader in Architectural Technology at Bolton University, has agreed to join the committee as CPD Officer. We look forward to seeing a stimulating programme of CPD events in the future.

The Region would like to thank Prof Sam Allwinkle for giving a very thought provoking talk on 3 May on the future changes that CIAT needs to address. Paul Greenwood also gave a

talk on the changes to the Construction Act. A Regional Business meeting was also held. Minutes are on the Region's website.

Republic of Ireland Centre 2

The Construction Industry Federation (CIF) is urging members in ROI to be vigilant after reports that steel products of insufficient quality may have been imported. The product failures arise in hot formed longitudinally welded hollow profiles and cold formed longitudinally welded hollow profiles of unalloyed construction steels of types S355J2H and S235JRH. (from 80x80x6mm to 500 x 300 x 12.5mm). Due to incorrect aluminium content these products are only suitable for welding in limited applications. For further advice please contact your local building control authority.

From July 2013, CE marking of construction products covered by harmonised European Standards is mandatory. Manufacturers, importers and distributors have new obligations and responsibilities when placing a construction product on the market. Designers, specifiers and builders must be aware and understand the new requirements on construction products. For more information visit www.nsai.ie (National Standards Authority of Ireland).



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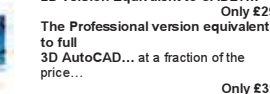
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Practical Building Conservation: Metals

Review by Paul Travis MCIAT

Another work in the revised Practical Building Conservation series originally created by John and Nicola Ashurst, the volume on metals has carried on in the same vein as the volume on stone.

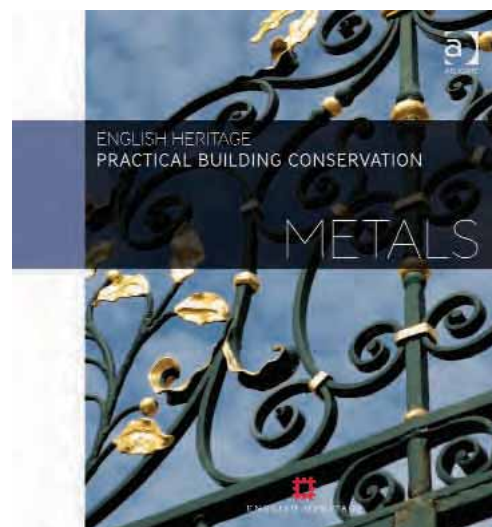
With the assistance of some of the country's leading practitioners, English Heritage have collated a comprehensive guide to the materials encountered by the conservation professional in many guises. Utilised in structural, ornamental, fixing and cladding contexts, metal and metal alloys are some of the most ubiquitous materials in construction, and especially so in conservation contexts.

Describing the historical background to the manufacture and use of the main metals encountered in architectural contexts, the guide explains the primary mechanisms of decay and damage to metals and explains the options for cleaning and repair of ferrous and non-ferrous

metals. Each section is concluded with a bibliography for further reading and thus provides an excellent starting point for anybody wishing to undertake further research.

Using the same format and benchmarks as the other volumes, the book is lavishly illustrated with photographs, diagrams and clear tables showing how metals deteriorate and the procedures for the investigation and diagnosis of architectural metalwork, cladding and decoration, with appendices on sculpture and bells.

Again, the new volume is a worthy successor to its parent edition, and fittingly dedicated to the memory of John Ashurst. This work, like the others, is a 'must have' for any conservation professional, student, or conservation library. While its price might seem high, its value over the years will pay back the costs many times over.



Volume Editors: S Godfraind, R Pender, B Martin. Principal contributors: P Baty, D Farrell, R Harris, G Wallace. Series Editors: Martin, B., Wood, C. Ashgate Publishing, Farnham, 2012. ISBN-9780754645559 £65.00

Architectural Technology, second edition

By Stephen Emmitt



Architectural Technology is at the interface between design and construction. As design becomes more complex, using a wider range of complex technologies and materials, it is essential that professionals in Architectural Technology and other professionals understand the implications of their decisions on the performance of the building over its entire life cycle.

This core textbook on translating creative designs into functional buildings is written for undergraduates in Architectural Technology, architectural engineering, architecture and building surveying. The second edition has been thoroughly revised and updated to reflect new technologies - both in materials and ICTs, increased attention to sustainability, and changing methods of procurement.

Architectural Technology is structured to take the reader through the whole life-cycle of a building, emphasising sustainability, building performance and the value of design. Material on digital information, building information

modelling (BIM) and information communication technologies has been updated. Most chapters have been re-titled, re-structured and enhanced with photographic images to emphasise the importance of design and make the book more accessible to a wider range of students. Chapters conclude with extensive links to further reading.

The three main themes – Environmental Sustainability; Innovation; and Design are emphasised throughout with the focus on translating conceptual designs into built artefacts.

Stephen Emmitt, BA(Hons), Dip. Arch, MA(Prof. Ed.), PhD is Professor of Architectural Technology at Loughborough University; he is a registered architect with industrial experience and extensive teaching experience of Architectural Technology across a wide range of built environment courses, in the UK and in Denmark.

Published by Wiley Blackwell. April 2012. ISBN13: 978-1-4051-9479-2 £32.50. Additional available formats: Adobe PDF (978-1-4443-6103-2) ePub (978-1-4443-6104-9) MobiPocket (978-1-4443-6105-6)

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