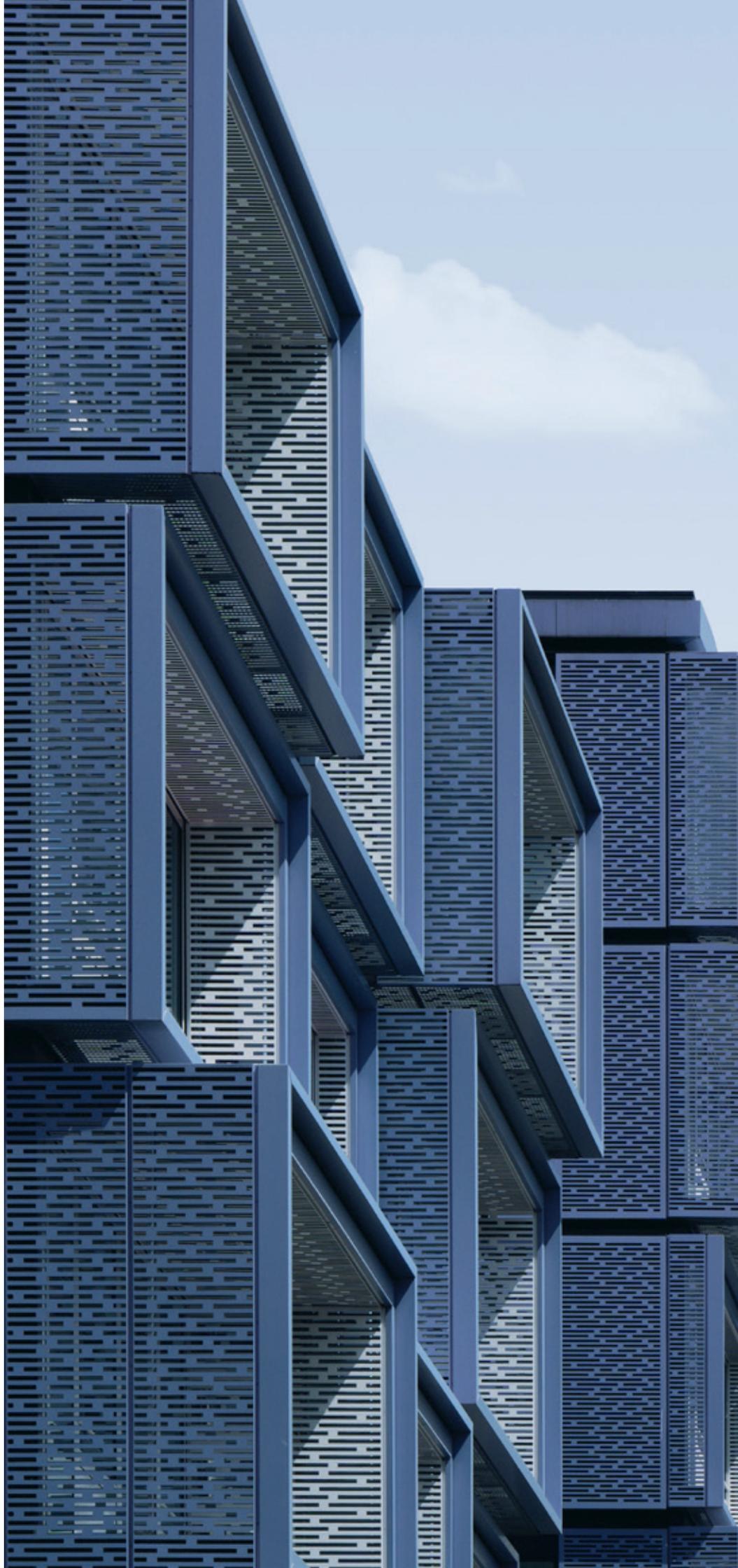




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**Editor**

Adam Endacott  
 editor@ciat.org.uk  
 +44(0)20 7278 2206

**Advertising**

Silvia Faggion  
 advertising@ciat.org.uk  
 +44(0)20 7278 2206

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in /Chartered Institute of  
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**President**

Alex Naraian PCIAT  
 president@ciat.org.uk

**Chief Executive**

Francesca Berriman MBE HonDTech  
 berriman@ciat.org.uk

**Practice & Technical Director**

Diane Dale  
 diane@ciat.org.uk

**Education Director &  
 International Director**

Tara Page  
 tara@ciat.org.uk

**Membership Director**

James Banks  
 james@ciat.org.uk

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# Increasing need for offsite construction and manufactured infrastructure in the UK economy

Words by Professor Sean Smith, John Wood and Robert Hairstans

Due to increasing demand for housing and other building infrastructure the methodology of offsite construction is becoming more attractive to developers, local authorities and government organisations. This article outlines some of the key drivers such as on-site skills shortages, increasing population, community and education buildings required and policy issues.

Collectively they provide a demand platform which requires a paradigm shift towards 'infrastructure by manufacture', such as offsite. Offsite construction techniques provide a range of benefits, which can embed manufacturing and supply chain routes in future economic growth across the UK and deliver a more sustainable approach. Offsite construction is defined as the manufacture and pre-assembly of components, elements or modules before installation into their final location<sup>(1)</sup>. Offsite construction is one of the approaches within the overarching terminology of modern methods of construction (MMC), whereby MMC is the continuous improvement of building processes through the application of lean theory to remove waste and increase value.

Offsite construction for buildings typically involves the incorporation of one or more of the following offsite systems:

- Closed panel construction for walls and roof systems.
- Cassette floor systems.
- Bathroom pods and kitchen modular units.
- Roof modular units.
- Whole room modular units.
- Whole building modular units.

Generally, the level, complexity or category of offsite is dependent on the extent of pre-assembly of the components offsite, such as installation of insulation, wall linings, membranes and connections for services.

Whilst offsite construction has been initiated by various companies during the last three decades, interest in the sector has gained traction during the last five years by Government departments initiating various reviews, consultations, commissioning reports and supporting skills development.

In 2012, the UK Government commissioned the 'Offsite Housing Review'<sup>(2)</sup>, to identify how offsite construction could be supported, identifying the future benefits gained from offsite and how this could inform future parliament budget announcements and investment. The UK offsite sector in 2012 was valued at £1.25 billion with anticipated growth to £6 billion over the coming years (7% of £90 billion construction market).



In 2012, the Scottish Government commissioned a 'Strategic Review of the Offsite Construction Sector in Scotland'<sup>(3)</sup>. This identified from interviews with 17 offsite manufacturing and key system suppliers an annual value to the economy of £135 million (manufacturing base) with expected growth to £260 million by 2018. This report led to the Scottish Government investing in the Greener Homes Innovation Scheme investing in new housing developments, which incorporated offsite construction techniques.

In 2013, the UK Commission for Employment and Skills (UKCES) published an evidence report 'Technology and Skills in the Construction Industry'<sup>(4)</sup> which built upon the previous 2012 publications such as 'Sector Skills Insight'<sup>(5)</sup> and 'Sector Skills Assessment for Construction'<sup>(6)</sup>.

In 2014, the UKCES launched a competition<sup>(7)</sup> whereby organisations could apply for a proportion of funding to support the development of offsite skills. Five projects were successful in securing this funding and the project leads were:

- Laing O'Rourke — concrete offsite systems.
- Steel Construction Institute — lightweight steel offsite systems.
- Skanska — offsite construction school.
- The Comparator Project — comparing whole life costs and sustainability metrics through an online design software.
- Edinburgh Napier University — practical and interactive learning materials with strong focus on timber-based systems.

The Scottish Government Skills Development Plan 2014, published by Skills Development Scotland<sup>(8)</sup>, also identified offsite as a key growth area and necessity for future skills training. Resource Efficient Scotland and Zero Waste Scotland have also supported and trialled offsite systems at BRE's Innovation Park. Industry bodies such as BuildOffsite<sup>(9)</sup> have grown in membership and improved warranty and insurance measures have been developed for the sector.

Such approaches to develop skills and deliver underpinning support measures have come at a crucial time for the industry, given the strategic future role this sector could provide in the delivery of building infrastructure over the coming decades.

## Key drivers

A series of external drivers are playing an integral role in how the future use of offsite is gaining traction with key stakeholders. These drivers are primarily linked to:

- supply shortages in skilled workforce;
- current and future population changes;
- demands upon the UK's retirement and care habitat;
- education buildings; and
- sustainability measures.

### A. Future workforce

The collective influence of the UK economic downturn led to approximately 57,000 school leavers not entering the built environment sector and choosing other sectors. The combined effect of the loss of key skilled workers during the recession, reduction in overall apprenticeships numbers and lack of school leavers choosing built environment related degrees would limit the future outputs and growth for the sector.

During 2014-15, surveys by the Federation of Master Builders<sup>(10)</sup> identified key shortages for on-site skills. 25% of companies had reported significant difficulties in recruiting for bricklayers, joiners, site managers,

supervisors, plumbers, plasterers, roofers and HVAC services staff.

For companies to meet future contracts and for governments to deliver significant housing growth, a step change approach is required to address such skill shortages.

### B. Population changes

According to the United Nations Department of Economic and Social Affairs<sup>(11)</sup>, the global population increases by 1.5 million people per week. The UK population of 64.6 million is ranked 22nd in the world for population by country.

By 2039, the UK population is estimated by the Office for National Statistics<sup>(12)</sup> to increase by 9.7 million to a total of 74.3 million. This will place significant pressures on existing societal infrastructure such as housing, schools and health care.

A population increase of 9.7 million during the 80's and early 90's, with 2.4 people per household, would have required approximately four million new homes. However, current UK average household sizes are decreasing towards 2.2, which would require 4.3 million homes to be built between 2017-37. This translates to 220,000 new homes per year, every year. In addition, there are 1.5 million households on UK housing waiting lists<sup>(13,14)</sup> due to either living in very poor condition housing, staying in temporary accommodation or living in very overcrowded homes. If 75,000 additional homes were built each year (5%) to start to address the housing waiting lists, the total number of new homes required to be built would be 295,000 per year till 2037.

In the shorter term, till 2022, the Office for National Statistics estimates population increases across the English regions, with the main increases primarily focused in London, East and the South East. Whilst Scotland's population is projected to increase by 7.5% over the next 20 years, Edinburgh's population is anticipated to increase by 21%<sup>(15)</sup>.

A key change the UK and other developed countries are facing is the demographic change to population. The increasing proportion of certain age groups, changes in living style and reduction in the number of people per household will place significant demand on the future supply of societal infrastructure, such as housing and health care. With people living longer and requiring use of societal infrastructure over an extended period this will impact on future housing needs, designs and building technologies.

By 2037, 25%<sup>(16)</sup> of the UK population will be aged over 65 years. Increasing life expectancy, people marrying later in life and divorce rates leads to an additional pressure beyond only population changes occurring.

Statistics from the Scottish Government show an expected 9% increase in population from 2012-37. However, the number of households during the same period will increase by 17%, as outlined in Figure 1.

Scotland	Period
Type of increase	2012-37
Population increase	9%
Household income	17%

Figure 1 — Comparison of household versus population increase 2012-37, Scotland.<sup>(17)</sup>



Figure 2 — Variations in household size during the last 30 years. <sup>(18)</sup>

The influence of changes over the last 30 years in ‘household size’ is shown starkly by the change in ‘one and two person’ households, outlined in Figure 2. This provides supporting evidence towards future household projections and anticipating future trends and pressures UK Governments must meet.

**C. Retirement infrastructure**

Increasing life expectancy also results in greater provision of care for communities in urban or rural communities. Currently there are 18,000 retirement and care home buildings in the UK, housing 30 to 70 occupants. With the number of over 85’s set to double in the next two decades significant pressures on housing and care provision will occur.

Residential demand for care homes will rise<sup>(19)</sup> from 440,000 to 824,000 beds by 2040. From recent studies by Smith<sup>(20)</sup>, the UK would require to build 15,500 care and retirement buildings by 2035, each housing an average of 55 occupants, resulting in 780 to be built every year.

**D. Education infrastructure**

In England there are 16,766 state primary schools and 3,381 state secondary schools<sup>(21)</sup>. Over the past six years, England invested £20 billion in the new school buildings. Lessons are being learnt from the previous ‘Building Schools for the Future’ programme where only 25% of the first 200 schools had been delivered<sup>(22)</sup> within the expected timescale. Central and local Governments are likely to focus in future on greater use of offsite construction techniques for school building projects.

Whilst there has been considerable investment in new schools, there are still significant proportions of the existing school building stock which will require to be replaced and upgraded. Figure 3 shows the period of build in England and the proportion of the school building stock gross floor area built during these periods. 45% of the building stock stems from pre-1966, 23% between 1966-76 and 2% temporary, which were originally designed for short term measures. Many temporary school buildings over time became permanent structures. This has led to higher costs

for local authorities as these buildings often require significant maintenance or have to be closed due to leakage leading to lost education time.

School Building Period	% of Gross Floor Area
Pre 1919	12%
Inter War	8%
From 1945-1966	25%
From 1966-1976	23%
Post 1976	30%
Temporary	2%

Figure 3 — Period of school building stock in England. <sup>(21)</sup>

There are currently 2,048 primary schools and 362 secondary schools in Scotland. 20% of the building stock has been renewed or refurbished over the last ten years. Recent statistics on ratings of Scottish school buildings show that 422 schools are in ‘poor’ condition and accommodate over 104,000 pupils<sup>(23)</sup>.

Whilst Governments and local authorities try to address the growing population and new schools required there are ongoing pressures regarding replacement and upgrading of the existing education infrastructure. The built environment sector has one of the lowest productivity rates of all sectors, whereas manufacturing has the highest<sup>(24)</sup>. As such, a future shift towards ‘manufacturing infrastructure and buildings’ could improve productivity, reduce cost variables and improve the construction management process.

**E. Sustainability and material resources**

The number of sustainability, waste reduction and other carbon measures developers and local authorities need to address has also led to modifications towards the future whole build approach.

Offsite construction has a range of benefits relating to reduced waste on site, better quality control, energy

efficiency, better logistics and pre-planning approach and speed of build when compared with normal on-site build activities.

One aspect which is often cited by the offsite sector is the reduction in transport to site of products and materials and also on-site traffic. Studies by Quale<sup>(25)</sup>, in 2011, compared traditional onsite versus offsite and CO2 emissions. Quale showed that offsite based sites reduced transport emissions by up to 60% and when taking into account the delivery of materials and worker movements associated, to and from the offsite facility, the net savings on transport emissions was 20%.

## Potential growth for offsite construction

Offsite construction has been growing in its use within housing, education buildings, hotels and student halls of residence during the past fifteen years.

More recently, new housing using timber frame systems (non-modular) such as closed panels walls, roof cassettes and spandrel panels have become more widespread. Whilst the whole building may not be fully offsite, recent construction trends suggest a greater proportion of each building is now adopting an offsite approach.

Figure 4 shows the current trends for new build housing in England and Scotland using different core constructions. Projections for structural core build type expected by 2020 are also shown.

New build housing England		
	Current (%)	2020 (%)
Masonry/blockwork		
Timber systems	70	60
Other	18	25
From 1945-1966	12	15

New build housing Scotland		
	Current (%)	2020 (%)
Masonry/blockwork		
Timber systems	25	15
Other	65	80
From 1945-1966	15	5

Figure 4 — Current and projected 2020 core constructions of new homes for England and Scotland.

It is anticipated that England and Scotland will increase in utilisation of timber and other forms of construction, which are non-blockwork based.

Whilst Scotland has already high levels of timber construction, the silver and gold targets of Section 7: Sustainability building standards will lead Architectural Technology professionals to opt for more timber-based systems.

Figure 5 shows the relative proportion of new homes utilising offsite construction techniques for parts of the build system and projections for 2020. The most significant step change will be in Scotland due to the predominance of timber-based construction systems being more adaptable to offsite designs and methods. One of the drivers for change towards offsite may stem from future City & Regional Deal plans to accelerate low carbon housing provision. These have the potential to introduce framework contracts spanning several years that can harness offsite construction, local and regional supply chains and embed skills support.

England	2015 (%)	2020 (%)
Offsite	8	25
Non-offsite	92	75

Scotland	2015 (%)	2020 (%)
Offsite	40	70
Non-offsite	60	30

Figure 5 — Current and future projected use of offsite construction techniques for parts of the build system in new housing for England and Scotland.

New materials such as cross laminated timber (CLT) for use in modular systems and new lightweight steel modular systems are also expected to increase as new manufacturing facilities are opened. Recent advancements on concrete offsite construction systems for housing and new manufacturing plants being operational in 2018 will assist this growth.

## Growth of MMC techniques

Whilst the offsite non-modular and modular markets increase, it is anticipated that utilisation of other forms of modern methods of construction (MMC) will also increase. These could include:

- Adapted construction process — a process or product which can deliver reduced waste, saving build time and supporting lean approach [example: aircrete or concrete whole storey panels replacing normal blockwork coursing].
- Advanced products/materials — which can increase performance but using the same quantity (or less) of materials during construction, thus providing a reduction on overall material usage and carbon footprint [example: cellular blockwork providing high compression strength but using 20% less materials].
- Robust products and systems — which reduce workmanship variances or enhance build performance or reduce waste or avoid secondary measures later in the construction phase [example: timber frame ‘acoustic wall strap’ – using 30% less steel, providing double the strength, designed to improve site installation practice and reduce acoustic coupling across the wall].

Recent advancements in CLT will provide for large element wall, floor and roof panel approaches that can reduce time on site. New multi-function structural connectors, adapted floor system cassettes, integrated pod service units and advanced safety site construction measures also have the potential to increase productivity and shorten build times on site.

## Discussion

The rise in housing demand via increasing population and reduction in household size is placing considerable pressures on existing housing supply, housing waiting lists and requires advanced construction solutions and shorter construction times. Specific increases in demographic changes both for age groups ‘over 55’ and ‘over 85’ years and also the need for more ‘1 to 2’ person households is also shifting the future supply needs and requirements. Specific offsite retirement and care home designs that are designed for this sector and built in their local



communities, would be attractive whether to buy or rent. There may also be less financial risk as owners downsize from higher capital assets and also release existing family homes back onto the market.

Skill shortages, particularly in traditional construction skills, due to school leavers choosing other sectors, negative media about the construction sector during the recession and lack of significant upswing in apprenticeships, without more focused accelerated training and education, will lead to a skills shortage for some years to come.

Shortages of skilled labour will also place additional inflationary pressures on wages and market churn of labour as competition between companies to employ key site staff intensifies. Potential shortages of EU skilled on-site workers are expected following the UK's EU referendum Brexit result. The traditional construction methods will need to adapt and move towards more multi-skilling, offsite approaches and provide an alternative attractive sector for school leavers to deliver on the quantity of future construction planning in the pipeline. Offsite construction may reduce the on-site labour demands also providing a better and more attractive working environment in the future.

Material shortages in stocks and inflationary pressures on materials (due to demand and supply issues) are already impacting the sector such as for brick and block. Adoption of external wall high insulation render systems and pre-fixed brick slip panels are likely to increase in specification usage.

Offsite construction has the potential to have a more structured control on supply, leaner process, faster build and have benefits in relation to reduction in third party supply chain by focusing on B-2-B relationships. Although speed of site development can still be restricted by delays in utility infrastructure works.

UK Government policies and private developer needs are moving more towards supporting the engagement in further offsite construction<sup>(26)</sup> due to leaner approaches, reducing construction times, resource efficiency, sector skill shortages and carbon and environmental benefits. The future planning submissions outlined in the Lyons Review<sup>(27)</sup> and investors behind these projects will shift from 80% housebuilder driven to 65% non-housebuilder driven. The changing funding mechanism for future housing and swing towards private investors, pension funds and various alternative investment models for housing will change the dynamic of market stakeholders, clients, supply reaction and required build times.

Overall build times will need to be shorter due to the market moving towards higher percentage of rental and investors looking for early returns on homes being occupied, similar to the hotel sector date of 'first-occupancy' model.

As Government releases land banks and local authorities and housing associations need to address higher waiting lists it is anticipated that larger framework agreements to supply housing may occur. Companies that have the capacity to increase supply via offsite construction approaches are more likely to secure such frameworks and partnerships. However, investment in future offsite manufacturing facilities is primarily stimulated if companies know there is a strategic large-scale supply contract framework in place. Without such frameworks and large-scale pipeline projects spanning many years there is unlikely to be the paradigm shift needed towards increasing 'infrastructure manufacturing' such as offsite.

The supply of new schools, replacement of existing schools and early years provision over the next two decades also suggests a role for full or partial offsite construction, particularly in the shorter 'window' build times and constrained sites.

Whilst there are existing offsite providers for schools, new offsite systems that can cater for housing, health and education designs may provide an attractive model for some local authorities in delivering multi-function projects for their local needs. Elderly care, retirement homes and assisted living are key areas of growth over the next three decades. Given the UK wide need for such provision, the reduction in complexity and added-value offering via an offsite system that can be supplied to anywhere in the UK may be attractive for future investors who will cater for this sector.

The role of the Chartered Architectural Technologist over the next decade will be significant not only in the initial design and delivery of technical solutions but also in the utilisation of building information modelling (BIM). Offsite construction through the upfront design and tackling early the technical compatibility issues provides a natural alignment with BIM objectives and functions. The future scope of limited material resources may require the need to embed a future deconstruction solution within future building designs. It is therefore likely that future procurement models may request designs that can provide deconstruction solutions and this may in turn direct designers to adopt greater use of offsite construction.

## Conclusion

The growth of offsite construction in the coming decade due to the key drivers of the UK's building infrastructure demands, skills shortages, building performance and sustainability policies has real potential. New skills will be required and site managers will need additional training support as the intensity of logistics is increased and the time factors of delivery schedule and build sequence are reduced. The UK is not unique in relation to the issue of housing and building infrastructure demands. The UN estimates that global population is on a 'medium' trajectory towards 11.2 billion by year 2100 with an expected increase of 4 billion population over the next 85 years. Given the average global household size of 2.8 and the increasing life expectancy and habitat needs, with a 9% increase in household provision above the population increases, suggests over 2.3 billion homes will be required globally in the next 85 years<sup>(27)</sup>. As such, almost all countries will need to address such issues placing significant pressures on skills, materials resources, land availability and speed of build. Those countries that adapt earliest and initiate national housing programmes, through a 'paradigm shift' towards offsite construction are more likely to avoid later global skill shortages, material resource constraints and reduce the impact of inflationary labour and material costs.

Offsite construction can enable better productivity within the UK infrastructure manufacturing and supply chains sector. It can also provide an export platform, as more countries adopt similar construction, building regulations, performance and sustainability standards. The role of the Chartered Architectural Technologist will be critical in the delivery of offsite construction and meeting Government sustainability policies. In partnership with other built environment sector professions, they also provide a wider role in addressing the future societal infrastructure needs that could deliver a significant positive legacy in the decades to come. ■

### Authors

Professor Sean Smith—Institute for Sustainable Construction, School of Engineering & the Built Environment, Edinburgh Napier University  
se.smith@napier.ac.uk

John Wood—CIAT Centre of Excellence, School of Engineering & the Built Environment, Edinburgh Napier University

Robert Hairstans—Centre for Offsite Construction and Innovative Structures, Institute for Sustainable Construction, School of Engineering & the Built Environment, Edinburgh Napier University

## References

1. Hairstans, R. 2010. Off-site and modern methods of timber construction: a sustainable approach. TRADA, UK.
2. Offsite Housing Review. 2013. Construction Industry Council, UK.
3. Smith, R.S., Hairstans, R., Macdonald, R. and Sanna, F. 2012. Strategic review of the offsite construction sector in Scotland. Scottish Government.
4. UK Commission for Employment and Skills. 2013. Industrial Strategy, Technology and Skills in the Construction Industry.
5. Gambin, L. et al. 2012. UK Commission for Employment and Skills. Sector Skills Insights; Construction. Evidence Report 50.
6. Breuer, Z. 2012. UK Commission for Employment and Skills. Sector Skills Assessment; Construction, Building Services Engineering and Planning.
7. UK Commission for Employment and Skills. 2014. UK Futures Program: Offsite Construction.
8. Skills Development Scotland. 2014. Skills Investment Plan for Scotland's Construction Sector.
9. buildoffsite.com
10. Federation of Master Builders. 2014. State of the sector quarterly summaries.
11. United Nations. 2015. World Population Prospects: Key findings and advanced tables. 2015 revision.
12. Office for National Statistics. 2014. Population growth forecasts: Live tables. UK Government
13. Dept for Communities and Local Government. 2015. Households on local authorities' housing waiting lists in England: Table 600. UK Government.
14. Communities Analytical Services (Housing Statistics). 2015. Local Authority Housing Lists in Scotland. Scottish Government.
15. National Records of Scotland. 2016. City of Edinburgh Council Area: Demographic fact sheet.
16. Office for National Statistics. 2014. Statistical Bulletin: National population projections.
17. National Records of Scotland. 2014. Population projections 2012-based.
18. National Records of Scotland. 2012. Changes in proportion of household type: 1961-2011.
19. Technology Strategy Board. 2013. Knowledge Transfer Network. HealthTech and Medicines: Analysis of UK long term care market.
20. <https://theconversation.com/why-the-uk-is-heading-for-a-care-home-catastrophe-in-the-next-20-years-50142>
21. Education Funding Agency. 2015. Property data survey programme: Summary Report. UK Government
22. National Audit Office. 2009. The Building Schools for the Future program: Renewing the secondary school estate.
23. Scottish Government. 2014. Statistical Bulletin. Summary statistics for schools in Scotland. No.5.
24. Chartered Institute of Building. 2016. Productivity in construction.
25. Quale, J., et al. 2011. Construction Matters: Comparing Environmental Impacts of Building Modular and Conventional Homes in the United States. Journal of Industrial Ecology.
26. UK Government. 2017. Industrial Strategy White Paper. p139.
27. The Lyons Housing Review. 2014.
28. Smith, R.S. 2016. Keynote presentation. IAHS 41st World Housing Science Conference.
29. Smith, R.S. 2018. 2 billion new homes required globally in next 80 years. The Conversation. February 2018.



The completed project

# Best laid plans

Words by: James Evans,  
Communications & Digital Administrator

Crawford Architectural turned a site with a Category C listed building — hit by a fire just before work was due to begin — into an award-winning project. In this interview, Kevin Crawford MCIAT, Chartered Architectural Technologist tells me just how this was achieved.

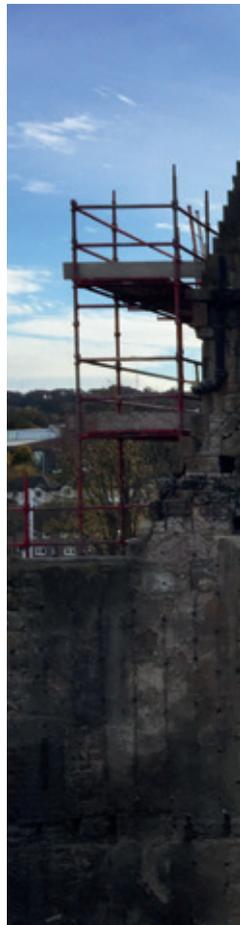
Blairtum House, a large Grade C listed building in South Lanarkshire, was constructed in 1878 as a manse and over its life had various uses from a care home for the elderly in the 1950s and a supported accommodation unit in the late 1970s. During its life, the building went through various cosmetic and structural guises before being declared surplus to local authority requirements in 2013, at which point they put the building up for sale.

A number of bids were put in by developers. The first bid to be accepted was to turn Blairtum House into a large family home, but this bid fell through. Crawford Architectural then worked with Rosewood Homes to produce what would become the second winning bid — a variation of which would ultimately win the ‘Place’ category for the Scottish Awards for Quality in Planning 2018.

The scheme that was selected involved preserving the original building, converting it into two flats and adding four houses to the site.

Working closely with the planners before the bid was put in was essential. “The council in this case were brilliant” Kevin tells me. “I do not regard our relationship with local authorities to be adversarial” he says. Throughout our interview, when talking about the project, Kevin consistently makes this point.

He takes issue with the language used in trade publications that presupposes there is a conflict between practices and planners. Practices regularly talk about how they ‘won’ a consent. “You did not win a consent, you were granted a consent” Kevin says. For him it’s not about winning a battle, it’s about negotiating and achieving the correct solution for each site.





Kevin gives plenty of credit to those in his office and the holistic design encouraged by the discipline of Architectural Technology for the concept they settled on.



In this instance, the planning department wanted to preserve the building and wanted something 'unique'. Kevin gives plenty of credit to those in his office and the holistic design encouraged by the discipline of Architectural Technology for the concept they settled on.

"You don't often get a chance to do something completely different within an urban environment" he tells me. Although the bid they put in was for the aforementioned six units, Kevin worked with the planners and got an understanding that there could be scope for a seventh which made the overall scheme commercially viable for Rosewood Homes.

Once the bid had been won, the close relationship with the planning department became even more important.

As much as possible was discussed and agreed with those in the department before the planning submission was made. Kevin believes that allocating plenty of time (and fees) for this is important. He also thinks people should allocate time for the review processes the planners must undertake themselves. Targets are often arbitrary and people "have to be realistic about what is achievable". With regards to the client, he tells me "I gave them honest timescales from day one". In this instance, planning took longer than it would have otherwise as the council owned the site — this meant it had to be referred to Scottish ministers. This is a process that takes place throughout the UK and one the practice had been pre-empted.

Planning was granted and work was about to begin when disaster struck. A fire ripped through Blairtum House and left the building devastated. Thankfully, nobody was hurt but this put the whole project in jeopardy.

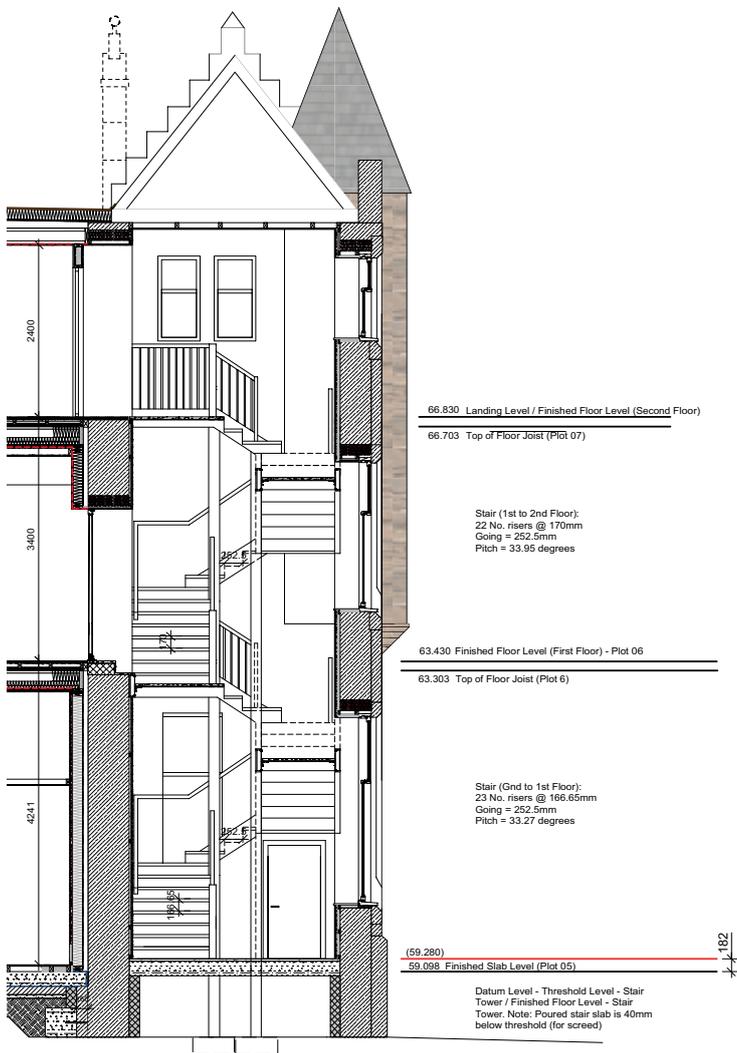
Kevin surveyed the site from an aerial work platform with an engineer. The building was still salvageable, but it would be hard work.

In the wake of this disaster, the client, Rosewood Homes, was considering whether to continue with the project. It had taken a financial hit from the fire. For it to be commercially viable, they told Kevin, they would need to find a way of adding an eighth unit to the site.

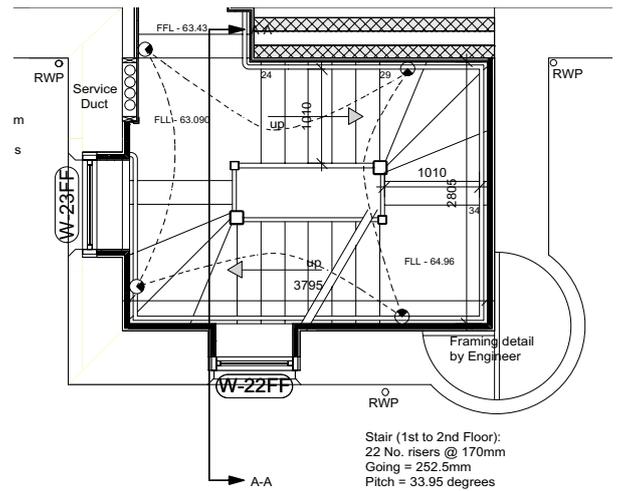
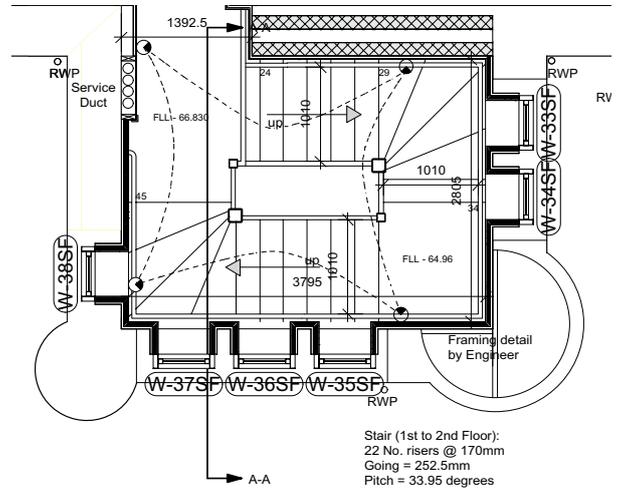
Kevin returned to the aerial work platform — this time with a planning officer. "This is what I have to work with" he said. Permission for eight units was granted shortly after — three units in Blairtum House and five additional units on the site.

It had become apparent to Kevin and the engineer that in order to see this project through they would need to do some extra work outside of their fee structure. However, Kevin says, seeing themselves as "part of a team" made them content with taking a hit. "If consultants don't have that attitude they're not going to be around for much longer" he says. A lack of flexibility is "why certain people do great one-off jobs, but you never hear from them again". In situations like these, you may be entitled to renegotiate fees, but if you do so, he maintains, you run the risk of not getting repeat work from that client. Kevin also believes it is important to resource the project properly so that there are enough fees to complete the job.





4 Section A-A  
Scale: 1:50



After the fire, the sandstone walls of Blairtum House were deemed not suitable as a loadbearing structure without having to carry out extensive reinforcement works, so it was decided that the flats and penthouse within it would be built on an independent timber frame. The remaining sandstone is purely cosmetic and functions as 'skin'.

'Modernisation meets conservation' was a theme of the project. 19th Century materials sit alongside modern innovations. The property maintains the traditional materials which complement the age and scale of the existing building, such as natural slates and timber windows, but embodies all the modern technologies of today to give the resident(s) a modern and efficient home.

Each of the properties on the development were fitted with integrated communications hubs and were fully wired up for data distribution, low energy features like air source heat pumps negated the need for solar panels on the roofs (something which the planning department wanted to avoid at all costs) and it was also decided to install sprinkler systems in all dwellings.

The project was submitted for its award by South Lanarkshire council themselves. It was the first they had put in. Kevin says this "speaks volumes" about the good relationship that he and his team had with them. "They didn't want to put my project in for a planning award. They wanted to put a project in that shows how the council operates at its best" he told me. "Working collaboratively with the whole design team."



1 West Elevation As Proposed  
Scale: 1:100

Existing ramp & steps removed and replaced  
New Front Door  
(Plots- 06,07)

The applicant, the agent, the planner. Everyone works together and you end up with something which you can be proud of. It's actually about the process." He is clearly proud of having won an award that is focussed on planning. I ask if there should be more of them. "There are awards for this all the time" he tells me. "They're not seen as high profile."

Kevin maintains that more attention (and resources) should be directed towards planning departments. There should be a "statutory provision" and they "should be ringfenced" he tells me. Fees taken by planning departments should be kept by those departments. Increased resources would enable more people to go out and "take time to look at buildings". He says, "you want them to be able to monitor, you want them to be able to

enforce when things go wrong as well". He also talks about planning officers being able to give a complicated project

"its proper time". If planning departments had more resources, he concludes, you'd have more projects like Blairtum House.

What advice does Kevin have for others taking on projects like this? "Be 100% honest and upfront" he says. It's important that the client understands the challenge you're going to face. To this end, Kevin adds, tell them "we are going to fall out" but "I will give you my honest appraisal at every turn". Set out what you will and won't provide for them but also be flexible.

"It's not easy" he says. His pride in his team and how the project has turned out certainly suggests it is worth it. ■

# AGM and fringe events

Glasgow, 2019

Saturday 9 November



Book early  
to secure  
your place

TBC

## Annual General Meeting

200 SVS, 200 St Vincent St, Glasgow G2 5RQB  
Dress: Smart attire

*\*free for members to attend*

The Annual General Meeting is the yearly business meeting for the Institute. The AGM is followed by a lunch for delegates. In September, following the Council meeting, timings for the AGM will be confirmed.

10:00

## Partners' Tour

Walking Tour  
Key destinations during the visit; with a lot of hidden gems on the tour.

- George Square
- City Chambers Building
- Glasgow Cathedral & Necropolis
- People's Palace
- Buchanan Street

One special stop with a coffee break at a Tardis and another quick stop later on where the group can try a local drink.

19:00

## Presidents' Ball

Grand Ballroom, Grand Central Hotel, Glasgow  
Tickets: £100

The Presidents' Ball is the annual Institute celebration, this year hosted by President Eddie Weir and Past President Alex Naraiian. The Ball is attended by delegates, industry guests and members. Tickets include a pre-dinner drinks reception, three course dinner and entertainment with a live band and dancing. This is a wonderful evening of networking and socialising to celebrate another successful year of CIAT.

Information

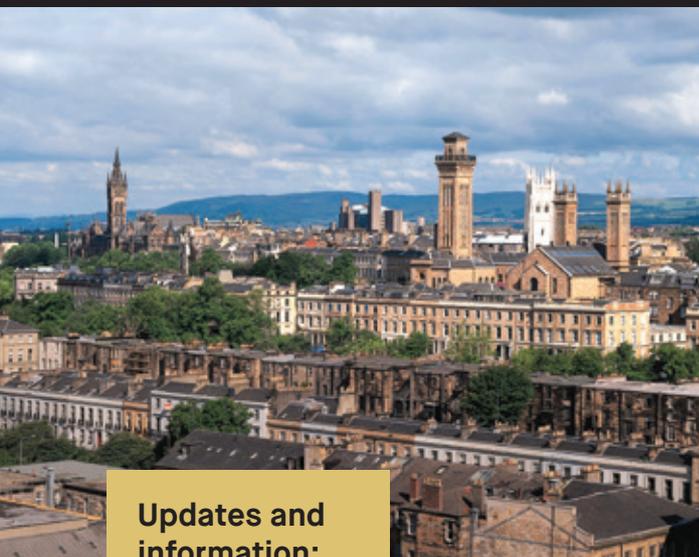
## Accommodation

Grand Central Hotel, Glasgow

## Friday Centre-hosted event

Friday 8 November  
Glasgow City Chambers

Further details will be confirmed in due course.



Updates and  
information:  
[ciat.org.uk](http://ciat.org.uk)

# The updated National Planning Policy Framework: A guide

Words by: Stephen Mair, Chartered Town Planner, Andrew Granger & Co



## What are the key changes made to the NPPF last year and what do they mean in practice?

Anyone who works in the built environment sector knows that planning is often a contentious and complicated issue which requires careful handling from the very beginning of the process. The challenge at the heart of any proposed new housing development is balancing the need to build new homes with the concerns and requirements of the communities in which they are to be constructed.

The Government's planning policy is outlined in the National Planning Policy Framework (NPPF), which was first published in 2012 and then reviewed and updated in July 2018, in order to address issues that had arisen since the original 2012 publication.

The Government has an ambitious target of building 300,000 new homes per year by the mid-2020s. In both the original document and the revised version, the Government aims to address the key issues in identifying the kind of homes that are needed, how many are required and, perhaps most importantly, where they should be built.

## Why does the UK need a new NPPF?

As well as improving on the clarity of the original document, the revised NPPF considers the progress that has been made so far and also addresses the current key issues in terms of planning and housing provision.

While many elements of the document, including its drive to deliver the necessary new housing, remain familiar, there are some important key changes which are summarised here.

### 1. Raising standards of building work

The new edition of the NPPF places a clear emphasis on maintaining, and ideally raising standards of build quality in new houses across England, which can only be good news for Architectural Technology professionals who are always concerned with identifying the best materials and processes for any project they are involved in. The NPPF identifies good design as being 'fundamental to what planning and development should achieve... and helps to make development acceptable to communities'.

One way to make this happen in practice is to foster a more collaborative approach by all parties involved, including getting the technical aspects of any construction project right from the very beginning. The NPPF also highlights the importance of builders and developers engaging with local planning authorities (LPAs) in a meaningful way as early as possible in the process. This should result in a greater emphasis on Architectural Technology professionals who work for LPAs concentrating on issues such as identifying location benefits, undertaking site surveys, carrying out feasibility studies, assessing environmental and legal issues and preparing planning permission documentation as they liaise with developers, designers, surveyors and other parties involved.

### 2. A focus on design

Members as designers should familiarise themselves with the specific requirements for good design. The NPPF identifies good design as being 'fundamental to what planning and development should achieve... and helps to make development acceptable to communities'. This is an important point as it addresses the risk of good design being compromised in order to meet the ambitious targets of building a large number of homes in a short time frame. Under the new NPPF, everyone involved in the planning process will need to be aware of the requirement for good and varied design that will satisfy the needs of new homeowners and the wider community around them.

### 3. Making the local planning authority more accountable for delivery

Due to the pressure on Councils to meet the increasing demand for new housing, the role of LPAs in delivering the Government's targets is given a high profile in the updated NPPF. The Housing Delivery Test, first introduced in November 2018, makes Councils accountable for ensuring a sufficient number of homes are being built. Due to this, LPAs are now required to show clear evidence of house build completions over the previous three years, alongside the continued requirement to maintain a supply of future housing sites for the next five years. This will require a more strategic approach from everyone working from a planning point of view, including those in the built environment sector.



#### 4. Better opportunities for small developers

LPAs are now required to accommodate at least 10% of their housing on sites of less than one hectare, helping to provide opportunities for small and medium-sized housebuilders. This is good news from an architectural point of view, as at a time when there is intense pressure on local authorities to significantly boost the delivery of new homes, it should help ensure that large scale developments are not constructed at the expense of architecture-led design and the use of innovative new materials and technology by a wide variety of small-scale housebuilders. This change should also help to increase housing delivery in the short-term, as smaller developments usually take less time to achieve planning and start delivering on-site.

#### 5. Providing affordable homes

Supplying an adequate number of affordable homes has been a key component of the government's planning policy for some time. The updated NPPF encapsulates issues previously addressed within Written Ministerial Statements such as the building of discounted market sale homes (starter homes) for first time buyers and generally making homes ownership more accessible to those on lower incomes. In addition, the NPPF now stipulates that a minimum of 10% of new homes on all major development sites should be affordable. The definition of a major development has been revised and is now classed as being 10+ dwellings or a site over 0.5 hectares (previously 1,000 sqm gross floorspace).

#### 6. Regenerating brownfield land

Local planning authorities are now required to maintain a register of brownfield sites that are suitable for residential development. To speed up and simplify the process of applying for and granting planning permission, any brownfield site entered into 'Part 2' of the register will be granted permission in principle with further consent required only for technical issues. This will allow developers to focus on providing suitable solutions to these issues earlier in the process.

The need to make use of brownfield land for development at an appropriate density is also given renewed emphasis with LPAs being encouraged to avoid low density developments when there is an existing or anticipated shortage in the housing supply.

In summary, it's necessary to give careful consideration to the changes made to the NPPF, not just in terms of how they will impact on everyone involved in the property and constructing chain, but for what they tell us about the government's long term plan for delivering housing in the UK. The fact that we need to build new homes is not disputed, but how we achieve that target is always open to debate and it's vital that this is always done with best practice at the top of the agenda. ■

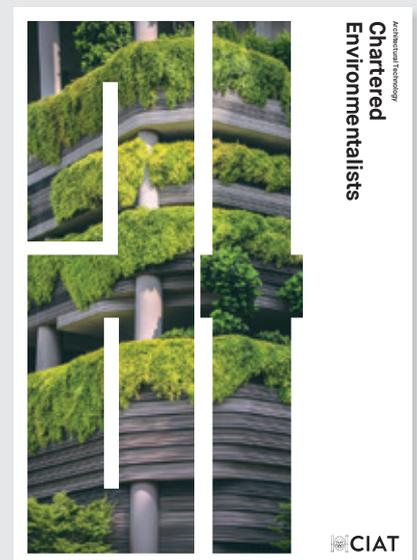
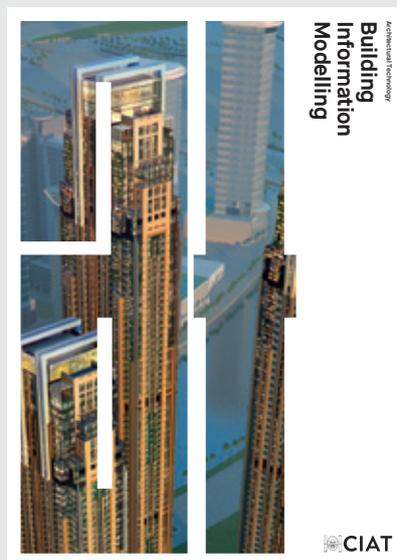
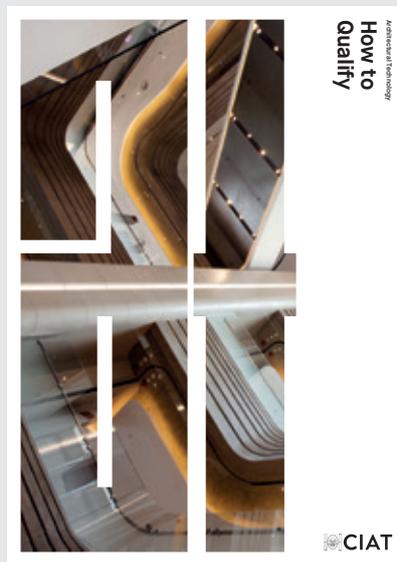
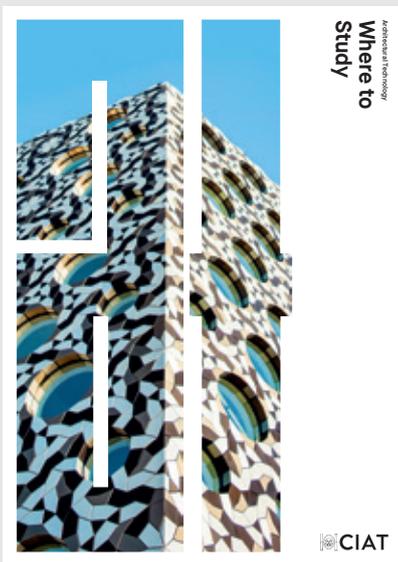
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# An investigation into apparent gaps between policy and practice in development management: a Central London case study

David Reddy MCIAT, Chartered Architectural Technologist

The planning system in England is continuously amended. Examples include; the Planning Act 2008 (UK Parliament 2008), the Localism Act 2011 (UK Parliament 2011), and the National Planning Policy Framework (NPPF) (DCLG 2012) and (MHCLG 2018). However, due to the procedures in place and the contrasting political agendas throughout the country, the publishing of new local plans has lagged behind the national documents by years at a time. They are rarely, if ever, consistent. This has been further exasperated in London, where the London Plan (Mayor of London 2016) is updated on a continuous basis and neighbourhood plans are more common than in other parts of the country.

Local plans must be consistent with national policy. The amount of time it takes from the publication of the draft local plan to the adoption of the plan by the LPA is typically 18 months. In some cases, this has been as short as twelve months (Planning Inspectorate 2018).

Lichfields (2017) noted that five years after the introduction of the NPPF, only 36% of LPA's had adopted an up-to-date local plan. 43% of LPA's had no local plan or pre-NPPF local plan.

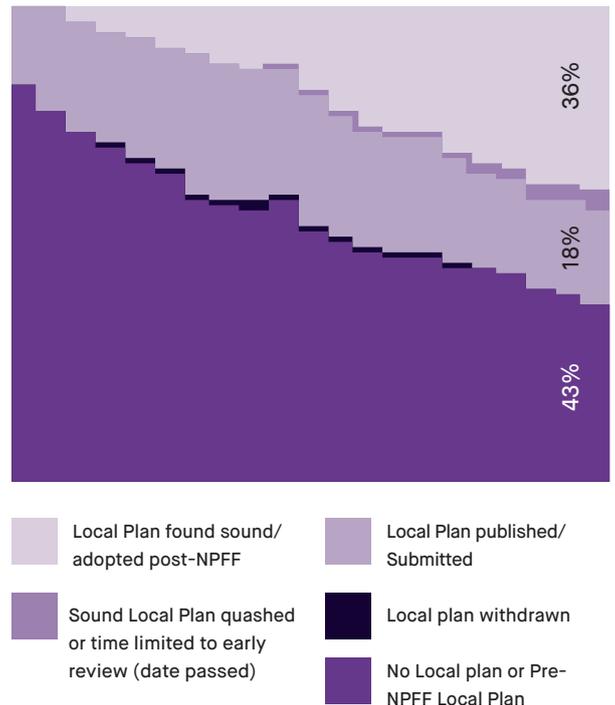


Figure 1: Local Plan Adoption Rate (Lichfields 2017)

Almost half of the plans found sound by the Planning Inspectorate needed to amend the housing numbers before approval was given (Edgar 2017). In response to the criticisms of the current green belt policies, the draft NPPF (UK Government 2018) allows strategic plan making authorities to review green belt boundaries if they can illustrate they have maximised brownfield sites and underutilised land and optimised development densities (RTPI 2018).

The author witnessed the effects of this in the Royal Borough of Kensington and Chelsea (RBKC) in relation to amalgamation policies during 2014-18.

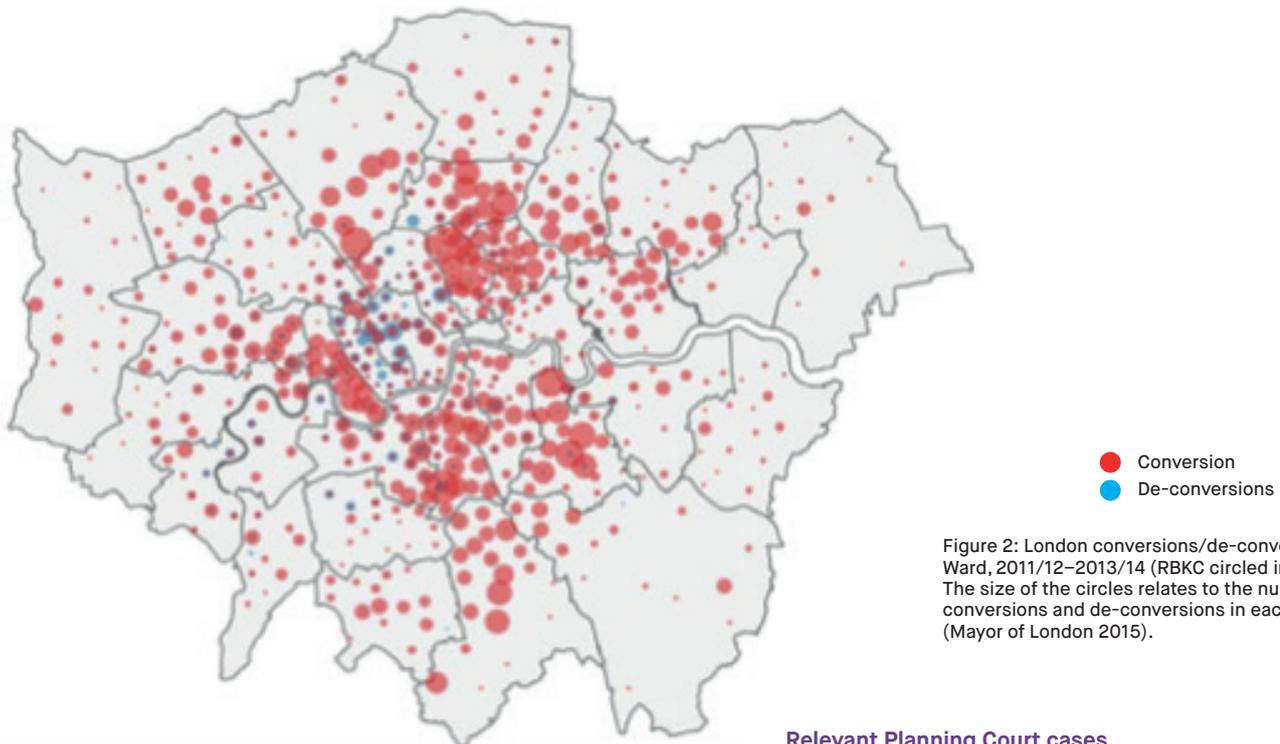


Figure 2: London conversions/de-conversions by Ward, 2011/12–2013/14 (RBKC circled in green). The size of the circles relates to the number conversions and de-conversions in each area (Mayor of London 2015).

#### RBKC local plan — focus on amalgamation

Amalgamation, in this article, refers to the act of combining two or more residential units into one unit. It can be used as a planning tool to aid the creation of larger residential units when the mix of housing in the borough is unbalanced in favour of smaller units. However, too much amalgamation reduces the number of housing units in the borough (RBKC 2017).

The NPPF and the London Plan state the necessity of future housing to be sustainably planned and developed. Amalgamation reduces an LPA's housing deliverables, which affects its ability to plan efficiently and meet supply targets.

De-conversions (amalgamations) have been popular in RBKC in recent years. At the time of adoption, the current RBKC consolidated local plan recognised a conflict within the borough between housing supply targets and the type of housing required (three-beds or more). A balance was struck to resist amalgamations with a net loss of five or more residential units (RBKC 2015). For reasons mainly relating to housing targets, RBKC changed its view in August 2014, requiring all amalgamation development to apply for planning consent.

#### Analysis of relevant documents published from 2004-18 reveals two key points:

1. Since the London Plan 2011 was published, RBKC has been struggling to keep up with the ever-increasing housing targets and this has led to the crack down on amalgamation developments as they have had a negative impact in the borough.

2. From the number of public consultations published, it is clear RBKC has been struggling since 2012 to define an appropriate structure for amalgamation planning policies that will be fair and balanced for its residents.

#### Relevant Planning Court cases

Two Planning Court cases were found to be particularly relevant in this context:

##### *Richmond Case*

Richmond upon Thames LBC v Secretary of State for the Environment, Transport and the Regions. Case no.: CO/4083/99.

##### *Stanhope Gardens Case*

R. (on the application of Kensington and Chelsea RLBC) v Secretary of State for Communities and Local Government. Case no.: CO/6442/2015.

#### Research methodology

Deductive reasoning was used to develop this research (Gill and Johnson 2009). The author's experience on a real-world project led to the theory being generated.

#### Case studies

As the hypothesis was specific in relation to the type of planning policies, the location, and the timeframe, analytical case studies were selected as an effective way to test the theory (Naoum 2013). However, as only two cases were chosen it was difficult to generalise the results (Denscombe 2014).

#### Questionnaire

Seeking opinions lends itself to questionnaires (Naoum 2013). As the study focused on planning policies in RBKC over the last four years, participants who were actively engaged in planning application procedures in the borough over that time were sought.

#### Data analysis and conclusions

The results of the case study research and the questionnaire were then coded to establish themes and issues raised (Bell 2010).

Caution needs to be exercised in drawing conclusions from the research due to the small number of case studies used and the low number of responses to the questionnaire.

## Data analysis — case studies

### Stanhope Gardens case

Pre-app advice was sought for the amalgamation of two flats at Stanhope Gardens on two separate occasions. In October 2013, RBKC feedback supported the proposals. Following this advice, the leaseholder of flat three purchased the leasehold of flat one. In September 2014, RBKC feedback did not support the proposals.

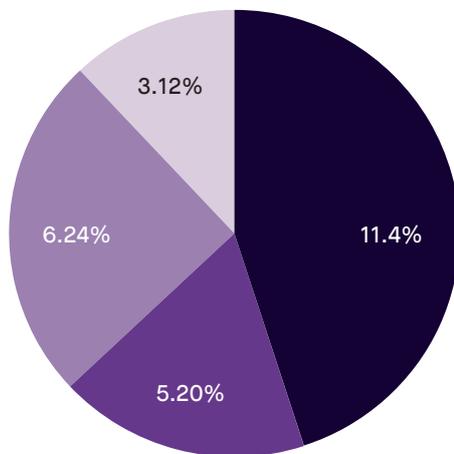
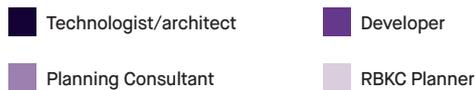
In the end, the Planning Court upheld the planning decision to grant permission for amalgamation.

### Sydney Street case

The certificate of lawful development for Sydney Street was submitted in April 2016, after RBKC had changed its view on amalgamation in August 2014. It was argued that the definition of development in this context was unclear in the local plan (Emma Adams & Partners 2016).

The link between the two case studies is apparent in the timeline. The Stanhope Gardens case shows that RBKC's initial communication of its change of view was not clear to the public (Lockhart-Mummery 2014). The Sydney Street case was submitted after the Planning Court ruling on the Stanhope Gardens case. Even though case law on the topic was now in existence, the public were still not adequately informed.

## Data Analysis – questionnaire feedback



## Demographic information

The respondents were very experienced in their fields, the average duration of experience was 16.2 years.

## Use of planning documents

Engagement with planning guidance documents was high, with approximately 50% accessing national and local planning guidance at least once a week.

## Opinion on local plan formation process

67% of the respondents believe the communication of changes in planning policy is not clear to the public

Timing is vital to effective communication. Although 71% of respondents believe amendments to local plans are not made in a timely manner, only 48% believe local plans should be updated more regularly. A requirement for stability was the key theme in the comments received. Respondents sought updates at regular intervals and alignment between the planning and political system. Potential Solution 1 suggests a way this could be implemented.

68% of respondents noted policies should not be updated instantly following public consultations. They should be independently reviewed against the national guidance to ensure consistency and avoid local bias, such as NIMBYism (Not In My Back Yard).

Currently the Planning Inspectorate would carry out this function. However, it is taking between 12-18 months to attain approval. If the LPA wants to change something immediately, a public statement would be issued, or it would be incorporated into the annual monitoring report. However, there is no direct link to the local plan PDF document. Potential Solution 3 suggests a web-based local plan document, where hyperlinks can be added to direct the reader to an appropriate update. This simple addition would alert the reader to recent updates and add a layer of clarity and transparency that is currently absent from the system.

Only 14% of respondents stated the current local plan approval system is working well. Potential Solution 2 suggests an alternative where LPA's assess each others' local plans, thereby spreading the load.

## Knowledge of amalgamation in RBKC

76% of respondents knew the current position of RBKC in relation to residential amalgamation and 74% knew RBKC's previous position in relation to amalgamation.

Only 4% correctly stated when RBKC changed their position. This showed that professionals working in the borough are picking up information during their work duties, but they do not remember exactly when they pick it up. This could be down to forgetfulness; however, the more likely scenario is that they only look for the latest policies when they need to use them. Therefore, they become informed on a need to know basis. This supports Potential Solution 3, web based local plans with hyperlinks.

80% of respondents did not know how RBKC's change in position was communicated to the public. Nobody knew it was stated in the 2014 Monitoring Report, indicating this is not an effective method of communication.





## There's no BIM like home Part 5

Words by Dan Rossiter MCIAT

Following on from the last issue, *AT Journal* continues its exclusive access to serialise Dan's blog on how he used BIM to produce an information model of his home.

After producing my EIR and having it verified by industry peers, it is time to pass the baton and view this blog not from the perspective of an employer, but from the perspective of a supplier.

So as a Chartered Architectural Technologist, let's look at this EIR from an architectural perspective and decide what I need to do. As one of my reviewers Chris Weston pointed out in the last issue there was a need to clarify what existing information is already available to me as the supplier. To do so I have referred to the EIR and have identified that the following documents have been made available for use:

- two property condition surveys (1996, and 2015)
- land registry information
- FENSA certificates
- gas and electric safety test data
- Energy Performance Certificate (EPC)
- boiler installation and warranty information

Now before I draft my BIM Execution Plan (BEP), the key supplier reference document, I should look at these existing documents to see what information I can extract.

By doing this I can determine what further investigation is needed and incorporate into my BEP. Also, if I was bidding for this job, it would allow me to tighten my scope of service by limiting the amount of information I would need to produce as this information has already been collected by others. Now there are professional services such as ProductXchange, a solution by CoBuilder that can extract product data from documentation such as these. However, I have chosen instead to do this the long way.

To get this information into a usable format I have read through each document and input the relevant information into an excel spreadsheet. Funnily enough, I did not intend to create a COBie file, but as I began to input information, I realised that I needed structure so I stuck to what I know, and it came a COBie file (of sorts). COBie was mentioned previously when I answered my Plain Language Question around Data Requirements. COBie in brief, is a method of structuring non-graphical information about an asset and can be used to share information in a consistent and structured manner. In BS1192-4 it gives the requirements for creating a COBie compliant output and includes the required (referred to as 'expected') fields, as well as its overall structure.



by working through the information I already have about my house I have managed to collect a lot of Information without doing any surveying, measuring, or Googling



Had I intended to use COBie initially for this exercise I would have used one of the template files available within the MoJ example from the BIM Task Group website; instead I have retroactively applied the COBie structure to my excel sheet.

By reviewing these documents, I have managed to extract a surprising amount of information. Using the original estate agent information I was able to extract space (room) details; some dimension information was also included but it is not accurate enough for my needs so it was not included. After reviewing the earlier property condition report I found that it was superseded by the one I had commissioned last year, which when reviewed gave me a wealth of information about my house and the condition of items within. The FENSA certificates confirmed who the installer was and the installation date for my windows. Finally, the gas and electrical testing information also proved useful in determining some basic information about my cable and pipe system as well as when they were last inspected.

There you have it, by working through the information I already have about my house I have managed to collect a lot of Information without doing any surveying, measuring, or Googling. Saving time and providing a good basis to begin the creation of my information model.

This means that I have now answered another Plain Language Question; PLQ2.1 Complete! Now that I know what relevant existing information I have available, I need to now work out how I plan to create my information model. To do so I will need a BIM Execution Plan to satisfy PLQ2.2...

After synthesising non-graphical data out of the various documents I received when we bought our house and generate a spreadsheet of existing information, I now need to plan to create my BIM Execution Plan to satisfy my next plain language question.

So what is a BIM Execution Plan or BEP? By referring to BRE's BIM Terminology tool, a BEP is defined as: Plan prepared by the suppliers to explain how the information modelling aspects of a project will be carried out.

So a plan is needed, but when writing a BEP there is a fine line between genius and madness...

The idea is that the BEP is the project's master reference file; any question a supplier has about information modelling, the answer should be written in it.

PAS1192-2 it outlines what content should typically appear within a BEP, and there are templates also available online such as the ones developed through CPlx. However, these are not perfect and conflict with the standards, so I have decided instead to make my own. A BEP comes in two forms: Pre-contract to advise the employer how a supplier will comply to their requirements at tender stage, and post-contract as a tool for information modelling during the course of the project.

N.B. I have not written (and don't plan to write!) a pre-contract BIM Execution Plan. The main reason is that as I am doing the work for myself so there's no tender evaluation, therefore its purpose doesn't exist. In addition, the key elements of a pre-contract BEP such as a summary of supply chain experience, project goals, and milestones are not applicable for a one man, one phase project.

So, I have instead focused on delivering my post-contract BIM Execution Plan. There are four key areas of a BIM Execution Plan:

1. Planning and Documentation  
The documents, and forms outlining the who, what, and when
2. Management  
Who is doing what, when will it be done, and what is required
3. Standards, Methods, and Procedures  
The rules of play
4. IT Solutions  
What IT formats/systems will be used

I filled each section in my first adding all the headings from PAS1192, then by reviewing my employer's information requirements and populating each heading to satisfy what I have asked for. This means that I have a reference document heavily aligned to the employer's requirements.

There you have it, by working through the employer's information requirements I had written, I have now created a draft BIM Execution Plan for the development of my house's information model.

Before I start using it however, I am going to need to make sure it is fit for purpose, so I will be asking for a peer review. Until then I won't consider this PLQ complete.

Now that I have my draft BIM execution, I need to programme what models I need to create and when. To do so I will need to generate a Master Information Delivery Plan (MIDP). ■

*To be continued in the next issue*  
*@DRossiter87*



## Build the arch, strengthen the support

Words by: Architects' Benevolent Society

Throughout 2019, the Architects' Benevolent Society (ABS) will be putting the mental wellbeing of architectural professionals and students at the top of the agenda through its #AnxietyArch campaign, which launched in February.



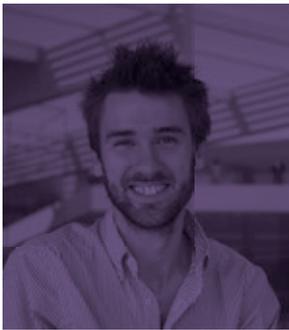
### The campaign aims to:

- encourage architectural professionals and students to recognise and talk openly about mental health issues and know where they can access help when they need it most;
- raise money to enable ABS to support more people experiencing stress, anxiety and anxiety-based depression, through its partnership with Anxiety UK; and
- promote good practice in terms of people looking after themselves, their colleagues, their employees and their families.

These issues are not specific to Architectural Technology and architecture, with an estimated one in six adults in the past week experiencing a common mental health problem\*, but the vulnerability of the architectural professions, widespread long hours' culture, combined with any issues outside of work can impact significantly on mental wellbeing.

The ABS will rely on the support of its volunteer ambassadors across the UK to help play a key part in rolling out this campaign. Their role will be to raise awareness of the ABS mental health support offer within the wider architectural profession and to organise fundraising events to support the campaign. The ABS has more than 50 committed and motivated ambassadors who dedicate time in their busy lives to inspire people to support the charity.

One of these committed people is Oli Henshall MCIAT, Chartered Architectural Technologist, Technical Associate for Powell Dobson Architects and Chair for the Wales aspirATion Group, who shares his personal motivation for joining the Society as a volunteer:



“Life is very short and very precious. I have been through my fair share of family tragedy over the past couple of years, and as a result, I found myself most evenings sitting and thinking about how I could turn all the negatives into some sort of positive. I needed to do more than just go to work and go through the motions, I had to try and make a difference in life. I suppose in a weird way, I wanted to make up for the fact that the people who are no longer with us, cannot fulfil their life’s dreams. I felt I owed it to them to not waste or take for granted life while I still had it.

The proposal of an ABS ambassador role fell into my lap whilst I was in the midst of processing all of the above, perfect timing one might say! After a mere ten minute presentation from ABS, I was sold. What an amazing thing to get involved in, helping and supporting my ‘professional’ family. Selfishly, it was something I could channel whatever was swirling around in my head into something positive.

Life is a series of peaks and troughs, it was a breath of fresh air and to be honest a restoration in my love for humanity, hearing that people like the ABS are here, waiting to pick you up and dust you off when you fall. What an amazing, often life changing thing to do for someone.”

The #AnxietyArch campaign will focus on a different theme each month, exploring different triggers for stress and anxiety, along with tips and advice from people’s own experiences.

Talking about mental health reduces the stigma around it. ABS wants people in the architectural community to know that they are not alone, and there is help available.

In March, the #AnxietyArch campaign theme is education and Oli Henshall has written an insightful article about his experience at university, including some advice for current students; below is an excerpt:

One in three students have received, or are currently receiving, treatment for a mental health problem, an

increase from last year (AJ Student Survey 2018).

I bet that’s quite a bit higher than you thought? It shocked me, but when I started to mull it over, it is not all that surprising really.

University is meant to be the best time of your life and looking back at my time in Cardiff, it really was. However, you do forget how you actually ‘felt’ whilst living the student life; I now just see the end result and gloss over the tough bits!

University life is a very complex and tricky thing to navigate. Some students take longer than others to ‘steady the ship’ as this lifestyle opens up plenty of opportunity for anxiety and depression to the surface. To dig a little deeper, if we split the university experience up slightly into ‘education’ and ‘socialising’, you can see how the contrasting lifestyles can start to muddle the mind.

If I can pass on any insight or offer of support, it would be do not panic! Look at the start of this article, you are one of three. Talking through your concerns and worries can make a world of difference. Do not try to be someone you are not and do not fall for the pressures placed upon you. University lasts three or four years, you have the world at your feet and a career which will hopefully span 30 or 40 years. You have all the time in the world to grow and develop as a person. The version of you at university is a snap shot of your life but not the finished article, so don’t beat yourself up, you are not finished yet!

You can read Oli’s full article, at [absnet.org.uk/news](http://absnet.org.uk/news) along with a collection of #AnxietyArch campaign stories and articles, all written by people with a passion for promoting positive mental wellbeing for architectural professionals and students.

If you would like to share your story or get involved in the #AnxietyArch campaign, then please get in touch with the ABS directly, we would love to hear from you.

The ABS provides a range of practical support through its partnership with Anxiety UK, a national charity with a network of approved therapists delivering a range of therapeutic support. Through this partnership, ABS is able to offer free and confidential support to people at the time when they need it most.

If you or someone you know needs support to cope with anxiety, stress or anxiety-based depression, please contact the welfare team at [help@absnet.org.uk](mailto:help@absnet.org.uk) to find out if ABS can help. ■

# International Women's Day 2019

Words by: Chris Senior MCIAT



**Inspired by International Women's Day 2019 on Friday 8 March, this is a good opportunity to showcase the creativity and skill of the women influencing our built environment.**

In the PiP Architecture office in Cambridge, 50% of our workforce are female. Our well-balanced team, both men and women, thrive in an environment that encourages collaborative thinking and offers opportunities to draw on the strengths and ideas of colleagues throughout the design process. This is not something that feels extraordinary to us, but with women making up only 19% of the architecture profession across the UK, perhaps it is.

While it is not for me to debate the barriers that restrict our female colleagues in practicing Architectural Technology and architecture, I feel well placed to celebrate the talent I observe. Nicole (ACIAT), Sustainable Building Design Specialist at PiP, is currently leading on a self-build scheme in East Cambridgeshire. Nicole adopted a strong landscape led philosophy drawing from her thorough contextual analysis of the rural location of the site and the resulting design clearly shows her desire to create a sense of community and place. The innovative design code and plot passports which Nicole created were heavily informed by her sustainability background.

Nicole does not have far to look for female inspiration. Perhaps one of the most well-known British architects of our time, Zaha Hadid, was the first female winner of the Pritzker Prize in 2004 and has created

inspirational buildings around the world, including the London Aquatics Centre for the 2012 Summer Olympics. Another prominent woman in British architecture, Alison Brooks, was joint winner of the 2008 Stirling prize for the Accordia masterplan right here in Cambridge.

PiP Project Architect, Kathryn (ARB) has been influenced by the vernacular of the city around her throughout her developing career. The impression of the Accordia development on Kathryn's work can be seen in her latest collaborative project on an urban fringe expansion within Huntingdonshire. Kathryn's use of strong architectural language echoes that of Brooks' through her high-quality palette of materials, repetitive forms and well landscaped public open spaces.



Self build scheme, East Cambridgeshire



Female designers, like Kathryn, have a rich history of women pioneers in architecture to aspire to. In 1671, Lady Elizabeth Wilbraham's completion of Weston Hall in Staffordshire, later listed at Grade I, made her the first known woman architect. It is also believed that

she tutored one of the masters of architecture, Sir Christopher Wren. Wilbraham designed up to 400 buildings using male architects to supervise the construction work, including a number of London churches which were originally incorrectly attributed to Wren.

At PiP we encourage collaboration. In a high density mixed use

Cambridge scheme, highly constrained by its central location, it was drawing on the multifaceted skills of Kathryn, Nicole and student Natalie, alongside a number of their male colleagues, that ensured delivery of a well-balanced and successful design.

Completed in 1932, the Shakespeare Memorial Centre (now the Royal Shakespeare Theatre) found in Stratford-Upon-Avon was the first public building to be designed by a woman; Elisabeth Scott. Scott's design also made her the first female victor of any international architecture competition. Another of Scott's designs, the Fawcett Building, can be found close to home at

Newnham College here in Cambridge.

Taking the initiative to promote a competition she felt impassioned by, PiP Architectural Assistant Natalie spearheaded an entry to the Maggie's 'Make Maggie's Yours' competition that would reflect the cancer charity's important role of compassionate support. The judging panel recognised Natalie's team's subtle approach, commenting; 'this gathering of pitched roofed rooms is well placed in its garden and well-illustrated with excellent feeling.' At this early point in her career, Natalie already plays a vital role in the team from which she also gains valuable experience.

Outside my own practice, and particularly through my role as Regional Chairman, I have enjoyed the opportunity to be inspired by many other talented designers around our Region. Kiru (MCIAT) continues to perform fundamental work for BRE and recently successfully attained her Chartered Membership with the Institute. Having originally qualified in Calicut, India, Kiru's journey to this point has been over twelve years while she balanced progressing her career after a relocation to the UK, with all the responsibilities of a young family at home. This demonstration of commitment to the progression of Architectural Technology and architecture can be seen in Kiru and her counterparts as much as it was in their predecessors. While our female colleagues may still be under represented in the Architectural Technology and architecture workforce, we do not have far to look to find inspiring designers, accomplished in creating a vivid impression on our public realms. ■

**Female designers, like Kathryn, have a rich history of women pioneers in architecture to aspire to**



# Spotlight on CPD

Every year we advise on ways in which your 35 hours of mandatory continuous professional development (CPD) can be completed, in accordance with the Code of Conduct.



## Eddie Weir MCIAT

President Elect  
Vice-President Practice

Principal Partner at Eddie Weir  
Architectural Design Partnership

Role: Practitioner

As a busy practice principal, I am conscious of the importance of undertaking carefully structured CPD for not just myself, but for everyone in the practice. It is also important to recognise that the technology of architecture is continually developing and it is extremely important for us to continually learn to keep up with these advancements.

### How do you undertake CPD?

I tend to mix up the way I undertake my CPD. This includes a combination of 'micro-learning' delivered in very short digestible chunks on specific topics (sometimes related to a project I may be working on) and 'deeper-knowledge' type face-to-face CPD to give a more detailed or advanced learning on a particular specialist topic; achieved by attending a workshop, seminar or a conference. The AT CPD Register is an excellent way to access really appropriate and structured learning.

Although both methods are useful, micro-learning for me is the easiest way with my busy schedule; and this can be easily achieved by reading articles, documents, reviewing short videos, podcasts and targeted web-research. I am frequently invited to deliver presentations regarding Architectural Technology and architecture to other professional institutes and universities. I'm fortunate to represent CIAT on numerous taskforces, councils and committees and speak on behalf of the Institute at Government level and at major industry events on issues regarding Architectural Technology and our wider industry. For me, this is a fabulous way of achieving a surplus of CPD hours which well exceeds the mandatory expected 35 hours within a twelve month period.

### How have you benefitted from your CPD?

A good structured CPD programme has given me the ability to keep pace and stay current with new developments within Architectural Technology and our wider industry circle. From new regulations to techniques and methodologies, it is important to stay abreast of the newest information available to us. My business and involvement with the Institute has enabled my learning to become conscious and proactive, rather than passive and reactive. It has also ensured that the professional standard of my knowledge and skills are maintained and importantly; that I am compliant with our Code of Conduct. Attending Regionally organised CPD Days and seminars has also given me the opportunity to network with my fellow members, friends and industry colleagues. When considered in this sphere it has added benefits in more than just my learning!



## Nooshin Akrami MCIAT

**Role: practitioner within a consultancy firm (since October 2018)/academic (2010-18)**

### How you undertake CPD?

I have attended the majority of the events that I have organised as the former Regional CPD Officer for the North West Region and this has helped me considerably. In this role, I examined the content of each CPD at least once before a presentation at a Regional event. On average, I arranged 8-10 events each year ranging from 1-2 hours to full-day events, which ultimately involved 8-20 hours of CPD. I also acquired knowledge and a greater understanding of how companies or individuals, who provided us with a CPD, operated while organising these events.

In addition, I continued to develop my organisational skills whilst orchestrating people and places, documenting and communicating information at different levels and layers. As an academic (prior to my current role), I spent many hours ensuring that information provided to students was current and involved academic papers and relevant journals. For technical details, I often used online CPDs (such as those provided by Building Design) to help students develop and enhance their knowledge. Not only did some of the guest lectures I organised benefit my students, but they also increased my knowledge on certain topics.

I've also had the privilege to participate as a panellist, member of the audience and speaker at various conferences and meetings nationally and overseas. I regularly review material for publication with an established publisher and am on the review panel for the International Journal of 3D Information Modelling (IJ3DIM). I engage with the following:

- Regional Committee
- Regional CIC Committee (Vice-Chair)
- Nuclear Industry Digital Special Interest Group
- GMCA Green Summit Working Group

Attending and participating in meetings and professional gatherings is a very effective way of learning and in addition, develops opportunities.

### Is it difficult to achieve 35 hours within a twelve-month period?

Excluding other events and activities which I've participated in or will be participating for this year, it is not difficult to achieve 35 hours in twelve months.

As a sample of my CPD in 2018-19:

- RICS North West Day CPD (six hours), Liverpool, June 2018
- Panellist at GMCC Construction Summit (six hours), Manchester, July 2018
- CIAT North West CPD Day (six hours), Salford, October 2018
- Work placement/job shadowing on BREEAM & Daylight Design application, BAU, Sweden, Stockholm, (35 hours), March 2019
- The Greater Manchester Green Summit (seven hours), Salford, March 2019

### How have you benefitted from your CPD?

I continue to learn at every opportunity which may involve a technical, political, strategic or organisational matter. There are many highlights this year but I specifically recall the keynotes at our Regional CPD event on 'Securing Our Digital Future'. This was an inspiring presentation covering technical, strategic and political issues. In my opinion, the future of the profession and one's career development requires multi-dimensional personal/professional development and whilst I do not know what the future brings, I am determined and confident that I will be ready for it!



## Paul Laycock, MCIAT

### Vice-President Education

**Role: Full time academic, including contributing to the Education and Membership Departments**

#### My approach to CPD

If asked what CPD is and why I do it, straight away I know they aren't a Chartered professional and certainly not a Chartered Architectural Technologist!

My reply, CPD describes ongoing activities of members ensuring knowledge and skills are kept updated.

The world of the Architectural Technology professional is increasingly fast moving with new and changing legislation, materials, techniques, etc. CPD is certainly not just about getting a qualification. It does not stop after graduation and is part of our lifelong commitment to professionally being the best we can.

My approach to CPD follows three strands:

#### Academic

CPD here must be effective and impact on student success. My research focus strongly supports this, as does my attendance/contribution at conferences by building and broadening my knowledge in this area. Within my own university, I also contribute to a number of university and faculty meetings and committees maintaining and enhancing standards. This is combined with external examining allowing a broader knowledge of current, good and innovative practices.

#### Practitioner

Essential if I am to maintain standards in my teaching and in work with CIAT. Being based in the West Midlands Region which holds regular events is helpful. This also allows me to tap in to a strong network of contacts providing case studies and examples of traditional and new technologies, materials and techniques. Of course, a regular reading list from industry publications is also a useful way to add to maintaining currency.

#### CIAT

Amongst other activities, I Chair visits for our Accredited undergraduate programmes. This includes reviewing programme documentation before the visits. The entire experience is an insight into the role of the Architectural Technologist as perceived by others, how students are positioned to enter the industry, the roles they will take up and how CIAT works to maintain excellence in Architectural Technology education throughout all the programmes it Accredits.

As can be seen from this, while some of my CPD

makes use of the traditional seminars and reading, the majority is quite specific and enquiry based. The family of contacts, colleagues and friends I have made at a local, national and international level through CIAT have proven to be an incredibly valuable resource for this, alongside colleagues from industry, education and other institutes. My network is more than resource enough to keep me where I need to be.

#### Was it difficult to achieve 35 hours within a twelve-month period?

Certainly not, maintaining and furthering my existing knowledge and skills and adding to these is almost a daily occurrence.

#### How has CPD benefitted me?

The benefits really are too many to mention here. If I was to try and sum this up, all of my development pushes me to be a better academic and to continue working with CIAT in ensuring and enhancing overall standards of education and membership. I benefit year after year as I see my graduates successfully completing their Accredited programme, securing graduate level employment and embarking on their journey towards becoming Chartered Members of our Institute. ■

From the profiles above, it is clear that CPD can take place in structured and more fluid ways. Activities such as mentoring, reading, researching, teaching, supporting/representing the Institute or your local Region/Centre also contribute to your compliance with the Code.

As long as the activity you undertake enables you to fulfil your professional role or supports you in your goals to progress your career to the next level — it all counts!

For any questions as to what constitutes CPD, please contact [education@ciat.org.uk](mailto:education@ciat.org.uk).

#### Clause 7: Continuing Professional Development

The members (excluding student members) shall:

- a) keep themselves informed of current practices and developments appropriate to the type and level of their responsibilities; and
- b) be able to provide evidence that they have complied with the requirements for continuing professional development (CPD) as published by the Institute from time to time.



# The Black House

Words by: Robert Barrie MCIAT

Life moves pretty fast. If you don't stop and look around once in a while, you could miss it.

Marty and Chris bought a 1970s bungalow on the edge of Strangford Lough solely for the stunning location and spectacular panoramic views. The pebble dashed bungalow which had been poorly added to over the years, didn't represent their way of living as top Northern Ireland food bloggers. They wanted a house where they could entertain and provide a space large enough for their legendary invite only 'dish you were here' supper evenings, whilst also creating a bright family home.





2020 Architects were tasked to take this small roomed, poorly insulated, dark existing house and on an incredibly tight budget, create a dramatic modern home. The build brought a little theatre to this stretch of the coast whilst providing bright, open plan living spaces. It was quickly concluded that the shell of the original house was reasonable to adapt in terms of costs and the existing form which sits comfortably on the site; however, the extensions and alterations to the original shape were helping to create the insipid and uninspiring 1970s house.

2020 Architects stripped the house back to its core; the layout was simplified to provide a generous living space with maximised views by adding a wall of glass. The existing window openings were replaced with minimalist fenestration or frameless glass where possible.

The build brought a little theatre to this stretch of the coast whilst providing bright, open plan living spaces.



Gareth Crooks, student member

The original roof structure within the living/kitchen/dining space was retained and the ceiling vaulted to utilise light in this area without incurring severe cost implications. The obligatory walk-in larder and utility space was added at the rear as a discrete flat roof extension.

The bathroom layout was re-designed to exploit the dramatic views, high quality tiles and sanitary ware incorporated to transform the space. The master bedroom was wholly changed to include a walk-in wardrobe, en-suite and sauna. Frameless glass was used in lieu of a standard window unit to obtain full advantage of the sea view.

The house was well insulated and wrapped in black corrugated metal to complement its surroundings; the rainwater goods were reduced and hidden to set off the dramatic form. Initially a polished brass door was specified for the main entrance however, to maintain budget the clients opted for a yellow PVC door.

Marty and Chris are now turning their attention to the garden and grounds. They intend on creating a garden room complete with a fire, patio and landscaping to include flame red flowers set along the black backdrop.

You're not going to be happy unless you're going Mach 2 with your hair on fire. ■



## UAE: President's visit

Words by: Francesca Berriman MBE, Chief Executive

### In support of the growth and profile of Architectural Technology globally the President, Alex Naraiian and I visited Dubai in Autumn 2018.

This visit, the first Presidential visit, was important to cement the activity over the last few years by the Institute and the commitment of the members in the UAE and the Middle East and Africa Centre.

The visitation took in practice visits, meetings with universities, presentations to students and professionals about Architectural Technology and the Institute along with engagement with fellow professionals and organisations. In addition, meeting with members and learning about the exciting opportunities of working in the UAE as well as some of the challenges!

We would like to thank the support of the members in the UAE in making the visit vibrant, positive and identifying real opportunities for the discipline, profession and Institute.

### International Ethics Standards Coalition (IESC)

CIAT is a signatory to the IESC which is a collective of professional bodies, businesses and supporters which have established a universal set of ethics principles for real estate, built environment and related professions. As a signatory, CIAT is involved with the promotion and implementation of these ethical principles. The Coalition meets remotely on a regular basis but also gathers once a year for a face to face meeting.

This is important for CIAT as it provides direct interface with representatives from like-minded organisations from across the globe. The meeting coincided with the President's visit and I attended the meeting as CIAT's trustee to the Coalition. Also attending the meeting were representatives from organisations from the USA, Australia, Philippines, UK, NZ, Africa, Canada and Europe.

An outcome of this meeting is that I will be working with colleagues from other organisations in reviewing some of the documentation — an excellent way to collaborate, network and build relationships.



### Practice visits

We were very fortunate to visit AESG and BSBG to discuss our development in the UAE, supporting the practices, promoting the discipline and the membership. These two practices are very engaged with CIAT and are strong supporters of Architectural Technology and value the demonstrable need for such professionals to ensure the success of a project.

AESG has four offices, three in the Middle East and one in London, and is a specialist in sustainable and environment projects. As part of our presentation on Architectural Technology, our visit also provided information on the Chartered Environmentalists qualification which CIAT is licensed to award.

In attendance from AESG were:

- Phillipa Grant, Division Manager, Energy and Sustainable Development
- Sophia Kee MCIAT, Senior Sustainability Consultant
- Fawzi Dibis, Sustainability Consultant
- Dalia Wagdi, Sustainability Consultant

### Brewer Smith Brewer Group (BSBG)

#### Meeting and site visits

We spent the day with BSBG which is one of our exemplar practices and one which understands fully the value of Architectural Technology professionals in the construction process; this is very clearly demonstrated through their project teams and project running. Across its global structure it has an enthused, motivated and passionate team of Architectural Technologists.

Following the meeting, we had the opportunity to visit three sites which all provided the opportunity to fully understand the type, size and level of activity Architectural Technologists feature; their importance and need. Extracted from the BSBG blog on the visit: <https://bsbg ltd.com/blog/bsbg-hosts-ciat-president-dubai-visit/>

BSBG was delighted to host Alex Naraian and Francesca Berriman on an official Presidential visit to Dubai. During the visit to BSBG Headquarters on 22 October, the President and Chief Executive met with Partner Andrew Bereza, before BSBG Lead Architectural Technologist, Richard Griffiths MCIAT, and Senior Architectural Technologist, Alan McIntyre MCIAT, gave a presentation highlighting BSBG's ongoing activity in the market, both in the UAE and internationally, as well as discussing current opportunities and challenges within the built environment sector and the discipline of Architectural Technology.

During the presentation, a number of topics were discussed, which included project tenders in the UAE, the impact of Expo 2020 on construction and the appetite and understanding of the importance of Architectural Technology and technological excellence in the Middle East and in other BSBG territories. After the initial meetings and presentations, Alan and Richard, with the assistance of Senior Architectural Technologist, Chris Day MCIAT, and Project Director, Joseph Corcoran CEng, gave a tour of live BSBG project sites in Dubai to Alex and Francesca. The tour managed to take in BLVD Crescent, ICD Brookfield Place and Bluewater's Residential in a single day, as well stopping by at The Beach, which was delivered by the group in 2014.



Commenting on the day spent with BSBG, Alex said "BSBG were great hosts and are a highly competent firm with a drive, commitment and passion for quality. Alan and Richard showcased BSBG's work and their commitment to CIAT, delivering technological excellence and to contributing to the growth of CIAT locally. They are very impressive."

For both Alan and Richard to be able to spend the day showcasing BSBG was a privilege, particularly as the Institute has had such an impact on their own careers. Richard said: "It was an honour to meet with and give a tour of some of our projects to Alex and Francesca. I think they were impressed with the work we've done and are currently doing; it was a very valuable exercise for both parties and I hope it served to further enhance the relationship we enjoy with CIAT."

### University visits

The President and I visited three universities, where we met senior staff to continue discussions on running Accredited Architectural Technology programmes, hosting Architectural Technology: Professional Insight events to students and academics, and have a tour of the facilities at each university.

#### Ajman University

We met with the Vice-Chancellor for Academic Affairs and other key senior staff. Presenting to over 80 students and academics which included a fantastic presentation by Neil Kee MCIAT, who at that time was Director, Head of Design Studio Dubai for Benoy, and has now changed jobs to become Vice-President of Design, Dubai Airport.

#### Canadian University

We met with the Vice-President of Academic Affairs and other key senior staff. The visit provided the opportunity to discuss their current programmes which included one on BIM and sustainability. Together with Richard Griffiths MCIAT, Lead Architectural Technologist at BSBG, we gave a joint presentation and Richard spoke about some of the projects we had visited during our site visit as well as new projects in development.

#### Manipal University

Another very positive meeting with the Professor and Chairperson for the School of Design and Architecture. Manipal is an important link for CIAT for the work we are doing in the UAE, but also in relation to the exciting work we are currently doing in India. Manipal University is one of the largest private universities in India with the Dubai Campus, which was established in 2000.



**We would like to thank the support of the members in the UAE in making the visit vibrant, positive and identifying real opportunities for the discipline, profession and Institute.**



Joining us to present as a practitioner was Joe Healey MCIAT who was Technical Coordinator for Gensler and had travelled in from Abu Dhabi to present. Joe was until this year also Councillor the Middle East and Africa Centre.

In commenting on the presentations on the current status of the Architectural Technology discipline globally, and in Dubai, Alex said “Each university I visited was uniquely and wonderfully different and diverse, and I am hopeful that there will be an Accredited degree programme up and running in Dubai in the near future. The word is spreading and the need for the discipline is definitely clearly understood.”

#### Emirates Green Building Council

This visit is one with real importance for a built environmental professional body establishing itself in the UAE. Delivering buildings and projects which respect sustainable and environmental principles are of significant importance. Providing support and opportunities to our members in the UAE to either share knowledge or gain knowledge via an organisation such as the Emirate Green Building Council is critical. Alex and I had positive discussions with Lora Shrake, the Director.

#### Centre meeting and networking event

The last two events held during the visit was a Centre meeting, to discuss Institute business, followed by a networking event hosted by the President at the Hilton JBR hotel. Guests included members, potential members and colleagues we had met during the week. Alex and I gave presentations on the exciting growth of the Architectural Technology discipline globally.

Presentations were also given by Joe Healey MCIAT as Councillor for the Centre and also David Comiskey MCIAT who was in Dubai from Ulster University and able to present on a project his university was currently undertaking; investigating construction quality issues (which has been well evidenced from various sources and reports) and have highlighted that poor quality, especially in relation to ‘as constructed’, on-site details can have a significant impact on both energy performance and life safety. They are investigating technological solutions for checking critical details and materials on site and linking this back to a project BIM for the purposes of validation/verification.

We were also joined by Emmanuel Oyebade ACIAT, who had flown in from Lagos to present on Architectural Technology in Nigeria, as part of his Masters. The talk he gave was fascinating and insightful.

The week was highly successful and very positive, there is a lot of opportunity across the UAE and an enthusiastic and engaged group of members. ■



# Introducing Architectural Technology to India

Words by: Amina Khanum, Assistant International Director

Over the past three years, the Institute has been working on developing and promoting the discipline of Architectural Technology in India.

In that time delegations from CIAT have met with a number of Indian universities and architectural practices. In addition to this, strong links have been developed with the All India Council for Technical Education (AICTE), which is the statutory body and national council for technical education, and the Council of Architecture (COA), the regulatory body for architects which oversees the standards of education and practice in this field.

The Council of Architecture proposed that CIAT facilitate a national workshop or conference on Architectural Technology as an academic and professional discipline in India, which would bring together universities that offer Accredited degree programmes and Indian universities that have an interest in developing an Architectural Technology programme or forming links with educational establishments.

Following a busy visit to India in July 2018, staff from the Institute's International Department met with Vellore Institute of Technology (VIT), a young, forward-thinking private educational establishment based in Tamil Nadu, South India. There they had a lively meeting with staff

who were eager to develop Architectural Technology and work with us to co-host a conference aimed at academics and students. On 14 December 2018, CIAT and VIT put on a successful event with an attendance of more than 500, which was hosted by VIT.

The meeting in July and subsequent event in December was instigated following discussions between the International Department and renowned Indian architect, Dr Jaffer AA Khan. Dr Khan, a long-time advocate for Architectural Technology in India, runs an architectural studio at Auckland University of Technology in New Zealand, works as senior faculty member at Dar Al Hekma University in Jeddah, Saudi Arabia, and is an adjunct Professor at VIT, visiting regularly to mentor students on the architecture programme.

The conference was opened by Dr Viswanathan, Chancellor of VIT and Professor Devi Prasad, Director of VIT School of Planning and Architecture (V-SPARC), who was instrumental in organising the event on behalf of VIT.

Before the conference began a traditional prayer was held which included lighting of lamps and the state song of Tamil Nadu, 'Thamizh Thai Vasthu'.

Alex Naraian PCIAT gave the keynote address on CIAT and the discipline, which led on to the first technical session, 'Architectural Technology as an important profession in the built environment sector'. Dr Jaffer AA Khan spoke on the development of the profession of architecture and the need for Architectural Technology as a distinct discipline, citing VIT as a possible trailblazer for the discipline in India.

Raguram Jayaram, a registered architect from Bentley Systems, Dubai presented on his work and experiences relating to the discipline. Mr Jayaram works as a Technologist advising on the design and implementation of information management solutions and best practices for collaboration workflows during project and asset lifecycles. He is a certified Bentley professional with skills in workspace configuration, standards development, content customisation, ProjectWise application integration and BIM/workflow implementation planning.

The second technical session focused on the need for Architectural Technology as a distinct discipline in India. The presenters included Deependra Prashad from Deependra Prashad, Architects and Planners, an architectural design and planning practice in Delhi, and Barath Gowda, a practitioner based in Bangalore who has 15 years of experience across USA and India in the analysis, design and implementation of types of building



structures. Barath is educated and trained both as an architect and an engineer.

Following the technical sessions, the three universities offering Accredited Architectural Technology degree programmes presented, representatives of which had travelled from the UK. The first academic session was based on Architectural Technology as an academic discipline, and presentations included overviews of the programmes and highlighted the need for Architectural Technology. Presentations were given by Mike Lee, architect and lecturer for the BSc (Hons) Architectural Technology programme at Edinburgh Napier University, Dr Colin Stuhlfelder MCIAT, Senior Lecturer in the built environment, and Programme

Leader for BSc (Hons) Architectural Design Technology at Wrexham Glyndŵr University and Sarah May MCIAT, tutor on BSc (Hons) Architectural Technology, and Principal Lecturer and business development lead for the natural and built environment from Sheffield Hallam University.

The final session was a lively panel discussion which included all academic speakers who took questions and comments on how Architectural Technology could be introduced in India. This session was chaired by Dr Jaffer AA Khan and several questions were asked to the panellists by the audience, and the students in attendance played an active role in the session, including one thought-provoking query on how the panel thought Architectural Technology would help with the colonisation of Mars!

CIAT would like to thank all those involved with the success of the conference, including the presenters, many of whom travelled from overseas, and VIT for coordinating and facilitating the event

During the visit, the International Department met with Professor Anil Sahasrabudhe, Chairman of the All India Council for Technical Education (AICTE). The Institute is in the process of organising a similar two-day national event in April. This is aimed at academics and students and will be kindly hosted by AICTE in Delhi and supported by both the AICTE and COA. ■





# Architectural Technology: Delhi Conference

**CIAT is hosting a two-day conference in Delhi, India on Thursday 4 and Friday 5 April 2019 to introduce Architectural Technology. The event is supported by the Council of Architecture and All India Council for Technical Education (AICTE), who is also hosting the conference.**

**Visit [ciatindia.com](http://ciatindia.com) for full details**

The first day will focus on the implementation of Architectural Technology in practice and is primarily aimed at students, although it is open and relevant to all involved in this sector.

The second day will focus on Architectural Technology education and provides insight from educational establishments that offer Accredited Honours degree programmes.

It is aimed at educational establishments in India that have an interest in developing Architectural Technology provision and forming links with other likeminded bodies.

# International Architectural Science Association (ASA) Conference

Words by: Gill Armstrong MCIAT

A key focus for the Australasia Centre is to build recognition of Architectural Technology across New Zealand, Australia and the wider Australasian area.

This is no small undertaking given the vast geographic scales involved across Australia and its neighbours. The whole of the UK can fit into most of Australia's six States multiple times! Since the Centre's formation in 2015, our members in Australasia have been working hard to maximise CIAT awareness with strategic initiatives targeting both the 'here and now' and the long-term future of members down under. 2018 proved to be a fruitful year for building Architectural Technology awareness in amongst the surf and vineyards.

Activities to promote the discipline in Australasia ended on a high note in 2018, with our involvement in the 52nd annual International Architectural Science Association (ASA) Conference (28 Nov-1 Dec). CIAT sponsored the conference, for the third year, due to mutual alignment of core values of ASA and CIAT. This year, the conference was hosted at School of Property, Construction and Project Management at the Royal Melbourne Institute of Technology (RMIT). Whilst RMIT is now ranked as the top provider of art and design university in Australia, it started out in 1887 as a small college focusing art, science and technology, in response to the industrial revolution in Australia. RMIT's history and current focus on design and technology is a fitting venue to host this year's ASA conference and of course, a great backdrop to discuss the discipline of Architectural Technology in Australasia. The conference chair was Associate Professor Priya Rajagopalan, who is the Director of Sustainable Building Innovation Lab at RMIT. This year's conference theme, Engaging Architectural Science: Meeting the Challenges of Higher Density, was highly topical given the rapid and unprecedented expansion of Australian cities over the past decade. The challenge of designing higher-density urban centres is also highly topical given the record-breaking temperatures experienced across all major Australian cities in January 2019. The focus on Architectural Technology has never been more needed.

The ASA conference is held annually over 3-4 days and is well attended by university lecturers and researchers passionate about the science of architecture. Delegates were predominately from Australia and New Zealand, but they came as far as Salford (UK) and South America. Around 120 research presentations were given, with time in between for delegates to discuss all things architecture, and of course, increase their knowledge of CIAT and the AT discipline. Presentations ranged from innovative teaching methods on building design programmes, hard scientific papers on measuring thermal comfort in high-rise residential towers to research examining the role of acoustic design for special educational settings. A selection of the best papers will be published in a forthcoming conference proceeding.

Australasia Centre member and Education Officer, Gill Armstrong staffed the CIAT stand and spoke with attendees about the international standing and lead that CIAT takes in the field of Architectural Technology. Our key aim is to support and Accredited university programmes within Australasia so that our members (present and future) have a place to train locally. Awareness of CIAT is gathering momentum with several respected higher education institutions now in discussion with CIAT about Accrediting new and existing programmes in both New Zealand and Australia. ■





## Spotlight on The Americas Centre Part 2

Words by Peter Drew MCIAT, Centre Chairman

Following on from the last issue, *AT Journal* finds out more about the Centre and its members.

**Craig O'Halloran MCIAT is the current Treasurer for the Centre, a Chartered Architectural Technologist who has worked in Dublin, London, and most currently, Chicago in the United States. He has worked on a range of projects with a focus on commercial offices, corporate campuses, residential, retail and transportation.**



Craig was educated at the Dublin Institute of Technology, University of Westminster and, recently, has completed classes through Harvard University, Graduate School of Design. His first major job in the industry was a small Dublin practice specialising in bespoke luxury residential dwellings. He then moved to London in 2013 and joined a large residential led practice where he worked on large scale residential projects.

He has an immense passion for design excellence and enjoys working on all aspects of projects. Since joining Gensler, the world's largest architecture, design and planning firm, Craig has contributed to a number of research projects including *The Future of Transit*, which was published in the *Gensler Research Catalogue, Vol.2*.

During his time in Gensler's London office, Craig led part of a large retail centre in the Middle East from concept through construction. He then went to work on many retail projects, including a brief tenure in Germany for a specific client. Following that, Craig was

project leader for the office's first residential project and became part of the residential department. This involved growing the residential department in London as well as Gensler's global residential portfolio, including a Gensler Design Award for the RESIDE research project. As a Passive House Designer, his expertise has been used on a number of projects and he contributed to blogs on this topic.

Since moving to Chicago in 2016, Craig have worked on many iconic Chicago buildings including the current repositioning of the iconic Willis Tower. Craig has most recently been project lead for an emerging technology/consulting firm in Chicago, as well now managing a major account for Gensler's Chicago office with projects across the United States. His current projects are in the states of Alaska, Florida, Maryland, Michigan, Tennessee and Wisconsin.

He is also the leader for the Gensler North Central Design Awards—an internal competition focused on the people who make up the region's four offices (Chicago, Detroit, Minneapolis and La Crosse). Unlike typical design awards, this competition aims to shine a spotlight on some of the non-highlighted project work as well as the community work and the passion projects designers take on outside of the office. Adjudication is then completed by an external panel made up of esteemed design and industry judges. In the last two years, 166 entries were submitted from all four offices and award recipients were announced in great fanfare during the summer celebration.

Craig was promoted to Associate in December 2018.

Becoming a Chartered Architectural Technologist in August 2014, it was Craig's ambition as it would qualify him as an 'individual responsible for the highest standards of quality and proficiency in our industry'.

#### **Confidential client – Technology/consulting firm – Chicago, IL. 60,000 SF – Completed June 2018**

A Design Narrative for Tech Driven | Creativity Centric Firm. The space has been crafted to balance places for work modes specific to the client; individual, paired, small and large teaming. Each of these work modes have been formally articulated through three primary spatial elements: Nodes, Networks, and Neighbourhoods.

#### **Node: Reception**

An energetic space that expresses human and naturalistic tactility, seamlessly balancing our creativity and future-forward technology.

The reception area is the essential in the client experience: the balance of humanity and technology. Guests are personally greeted with a smile and hello against a backdrop of a live-feed data-driven hologram that blends art and engineering.

#### **Network**

It is light and dark, geometric and organic, open and closed, structured and free. The Network is simultaneously a space for circulation, focus, collaboration, and socialisation. It is a spatial representation of energy, balance, and power. It presents personal choice of spaces fit for the mood or fit for the task — a balance of beauty and function.

#### **Neighbourhoods**

The Neighbourhoods are open plan with height-adjustable workstations that have been grouped to support a range of client teaming. They are rendered with a muted palette that highlights the vibrancy of our people, their work (via digital content on their monitors) and views to the city outside. The worksurfaces have a natural white oak surface that brings a tactile and natural warmth to the space. Adjacent to the digital content, this contrast reinforces our balance of natural creativity and digital technology.

Peter Drew, Craig and the other members of the Centre Committee are currently looking at ways to better engage the membership and network with the members via LinkedIn. The Americas Centre is also helping the International Department to develop a strategy to improve support to members in the area and to increase membership, looking to see how the Centre can add home grown Architectural Technologists to its ranks!

#### **Qualifying as a Chartered Architectural Technologist, MCIAT via the Professional Assessment**

Obtaining Chartered Membership of CIAT whilst overseas may not be as difficult as you think. If you have sufficient practice-based experience you can undertake a holistic self-assessment of your career in Architectural Technology cross referenced against the Professional Standards Framework (PSF).

The Professional Assessment is a flexible qualifying process for those who are suitably experienced and/or specialise within Architectural Technology. It is based around you and your experience and it is up to you to demonstrate the required level of knowledge, experience and professional competence addressing three key stages:

**Stage 1 - Educational Standards**

**Stage 2 - Practice Standards**

**Stage 3 - Professional Standards**

Your application must be supported by a fully qualified built environment professional who acts as a Referee. Once the Educational and Practice Standards (Stages 1 and 2) have been successfully diarised in the work place and assessed by CIAT, you must then successfully attend a Professional Standards Assessment Interview (Stage 3). At the Professional Interview, you must demonstrate to the Institute that you have the required knowledge, experience, competence and professionalism to represent the Institute as a Chartered Architectural Technologist.

The assessment of your application and Professional Interview can all be done remotely via an e-submission and a Professional Interview video conference, so there are no barriers due to your location.

For other candidates who have limited experience in the industry, there is an alternative qualifying process called the MCIAT Professional and Occupational Performance (POP) Record. Further details on both routes can be found at [ciat.org.uk/membership/qualifying](http://ciat.org.uk/membership/qualifying)

So, wherever in the world you are currently based, there are options for you to qualify with CIAT and we are here to help you achieve this! if you have any queries or require any support or assistance, please do not hesitate to contact [membership@ciat.org.uk](mailto:membership@ciat.org.uk) ■

# Honorary Officer elections 2019: your opportunity to influence your profession

Words by Francesca Berriman MBE, Chief Executive

The election process and how you could become influential within your Institute, shape its future and that of your profession.

For the effective operation for any professional body, it is essential that it elects positions from amongst its membership to allow it to function within its Charter. Such positions are open to Chartered Members who are invited to provide their experience, skills and time in a voluntary capacity to the work of the Institute set within the Strategic and Corporate Plans approved by Council. Contributing in such a capacity is two-way and Members who have been involved have benefited and learnt from their experiences.

Within the Institute's governance, there are a number of core roles collectively known as the Honorary Officer positions. These encompass the President, Honorary Secretary, Honorary Treasurer, Vice-President Education, Vice-President Practice and Vice-President Technical. These are all undertaken by Chartered Members in a voluntary capacity other than expenses which are paid for by the Institute.

This year there are three positions for election which are now open for nominations:

## 1 Honorary Secretary

Together with the President and Chief Executive, the Honorary Secretary is responsible for ensuring the smooth running of the Council, Executive Board, AGM and Conduct Committee in line with the Laws of the Institute (the Charter, the Bye-laws, the Regulations and Code of Conduct and other forms of regulatory provision made by the Institute). Working with the Chairman of the Conduct Committee, the Honorary Secretary is required to attend these meetings which are held at least four times a year.

Members who undertake this position must possess strong analytical skills and the ability to make informed decisions and considered judgments. The ability to interpret and understand information and evidence is essential, as is good communication and presentation skills.

## 2 Vice-President Education

The Vice-President Education works with the Institute's Education and Membership Departments on issues such as the development, maintenance and promotion of educational and membership standards, qualification development, Accreditation and membership recruitment, retention and progression.

The Vice-President Education is invited to attend all meetings administered by the Education and Membership Departments and will represent the Institute at relevant external meetings and events. A Member who undertakes this position must have a very strong academic background with considerable experience and knowledge of higher and/or further education and research, as well as a good understanding of educational establishments' relationships with professional institutes. They must be prepared to confidently represent and promote the Institute externally, particularly in regard to education and membership.

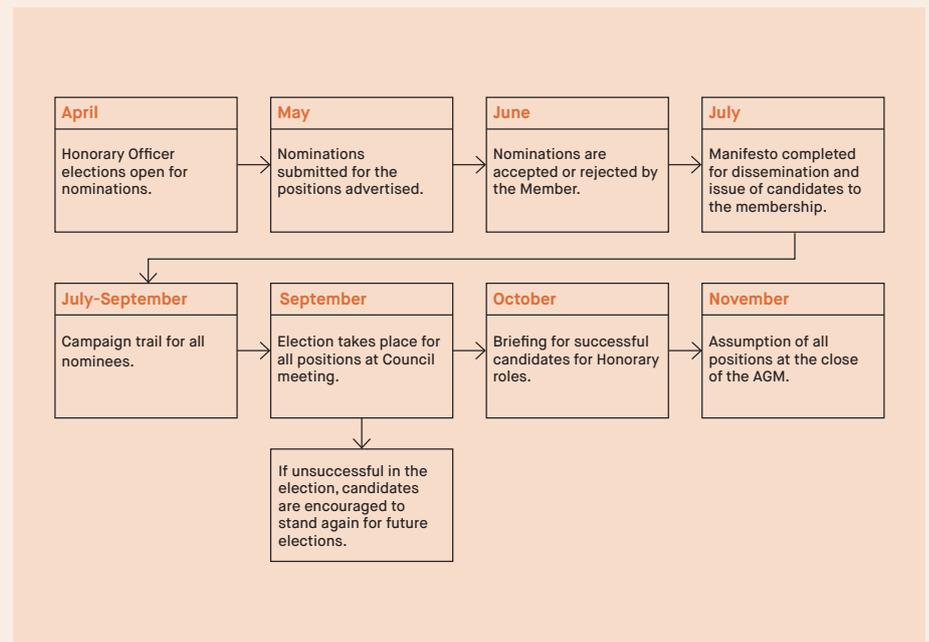
## 3 Vice-President Practice

The Vice-President Practice promotes the Institute's practice standards and policies for members practising the discipline of Architectural Technology. As such, the Vice-President Practice works closely with the Vice-President Technical, Practice & Technical Director and Practice Department in overseeing the work of the relevant Taskforces and working groups. These groups cover topics on liability, practice and technical documents, building regulations and legislative issues.

The Vice-President Practice may be involved directly or indirectly with these groups but reports to the Council and Executive Board on the work of these groups and their output and that of the Practice Department.

In carrying out these activities the Vice-President Practice:

- represents the members externally relating to industry issues, lobbying for change or improvement and lobbying and promoting on behalf of the discipline;



- ensures the necessary documentation is produced for the membership's benefit on changes in legislation or regulations; and
- ensures the appropriate guidance is available to assist members in implementing and complying with legislation and regulations in their work and complying with the Institute's policies and Code of Conduct.

A Member who undertakes this position must be a practising Chartered Architectural Technologist and have knowledge of the contractual side with an understanding of legislation and regulations. They must also be confident and able to represent the discipline at the highest level which includes Government.

#### What do these positions involve?

With each of these positions you will become a Trustee of CIAT and a member of the Executive Board, which is responsible for the implementation of the Strategic and Corporate Plans, which can be found on our website. The Board makes guidelines for the conduct of business of the Institute, in line with the rules of the Institute and policy. You will also become a member of Council, which is the Electoral College and Strategic Forum for the Institute. You will be expected to contribute to the policies and future strategic development of the Institute.

#### What does being a Trustee involve?

Trustees have an overall legal duty to the Institute and are the individuals who take decisions. Trustees have specific duties and operate within the rules of the Institute. Trustees work collectively as the Executive Board and once a decision has been collectively made — all Trustees are bound to support that decision.

A Trustee's primary duty is to the Institute and its Charter under which it is established, as such Trustees must act with integrity and adopt the values which helps CIAT achieve its strategic aims.

#### What are the time commitments to these roles?

You should be looking to commit up to five hours a week (approximately) but this will depend on the nature of the work, meetings, providing views and advice on documents, the time of year and external representation on behalf the Institute that may be necessary. It is essential you are proactive and reactive dependent on the project work required. With all the positions, you will be working closely with a staff Director at Central Office, and their departmental team and be expected to respond to queries speedily at times; this could be within a couple of hours. There will be specific meetings or working groups that you may need to participate in and possibly chair.

As an Honorary Officer you will be expected to attend two Council meetings (normally on a Saturday in March and September) and a minimum of four Executive Board meetings (two of which run in tandem with the Council meetings) as well as the Institute's AGM weekend (normally in November) and AT Awards presentation event (September). The positions are two-year terms, which become effective from the close of the 2019 AGM in November to the close of the 2021 AGM.

#### Representing the Institute and discipline

As representatives of the Institute, these positions require you to attend events and meetings on behalf of the Institute, for example, Construction Industry Council meetings, Award presentations, university events, or Government led steering groups, presenting at conferences etc. There will be specialist meetings which you will either have to attend/chair or contribute to, and you will need to report back to Central Office on these. The staff Director will work with you to ensure that you are properly briefed and prepared for these meetings where you will be expected to speak on behalf of CIAT and the discipline of Architectural Technology.

#### Social media

You would work with Central Office staff in relation to social media engagement.

#### What do I benefit from taking on a position?

You will have the chance to shape the future of your Institute, your profession and the discipline at a strategic level. If you have ever wondered why something has or has not been done then now is your chance to do something positive about it. You also get to network extensively with peers and fellow professionals, gain a greater insight behind the scenes at Institute, Governments and sister institute levels and it contributes to your CPD obligations.

#### How can I be nominated?

To be nominated for any of the positions, a fellow Chartered Member must nominate you in writing to the Returning Officer, who is the Chief Executive. Any Chartered Member is eligible to propose a candidate, although no nomination is permitted without obtaining the prior consent of the nominee. Any Chartered Member is able to stand for any position in these elections. No prior experience is required of the Institute — just a passion for Architectural Technology and the Institute.

#### What happens once I have been nominated?

Once a nomination has been received, you are then asked to formally accept or reject the nomination. You will then be asked to a manifesto. Once all the manifestos have been received, they will be issued to the Regions/Centres for their review, consideration and action. It is then your responsibility to actively organise and carry out your election campaign (at your own cost) to all members, this will be via the Communications Department and direct liaison with Regional and Centre Committees. Your campaign can be by a variety of mediums which is for you to choose. We provide you with the contact details of the Region/Centre Committees.

You will need to prepare a full manifesto for publication and distribution via the Institute's media channels; details of what we would be looking for in the manifesto will be included in the election section of the website and information pack. It will also be featured in the summer issue of *AT Journal*.

We will provide further clarification on the election process and the information we would be seeking on the website.

#### If I stand how do I promote my candidacy?

There are a number of ways in which you can put yourself in front of the membership during your election campaign.

There is the traditional manifesto which will outline your policies, thoughts and aspirations for both the role you are nominated for and the Institute. This should not be a CV but a formal written document which grasps your key objectives and aims. Alongside this, you can create a profile which showcases you as a person, captures your personality and strengths and puts across the real you to people who do not know you and want to know more about the person seeking election.

In this technological and social media focused world, you can create Twitter or Facebook accounts, videos, podcasts, blogs or a series of short films which support your manifesto and profile. You can get your message across simply and they can all be easily accessed.

You could arrange for a Q&A with the membership at a location and venue that is accessible and could have visits to Regions and Centres and meet with Council, those who will be voting on the day. There are a number of different mechanisms which will be covered in the information pack.

### What is the voting procedure?

- Regional/Centre Committees are encouraged to meet and discuss their preferred candidate, in an open forum which takes into account feedback from the Region/Centre membership;
- It maybe that you wish to proactively engage with the Region/Centre Committees to present your manifesto and respond to questions.
- Regional/Centre Committees advise their Councillor of their preferred candidate; and
- the Councillor is expected to vote in accordance with their Region/Centre's decision; however there may be exceptions where they may change their vote as per their Committee's instructions. These could be based upon the candidate's response at the Autumn Council meeting or other factors, for example, if the candidate withdraws from the election at very short notice that would not allow a Councillor reasonable time to refer back to their Region/Centre.

### How is the vote taken?

Elections are held at the autumn Council meeting:

- All candidates are invited to attend the Autumn Council meeting to respond to questions brought by Councillor from their Regions/Centres or to debate a particular issue in relation to their manifesto
- Council confirms and agrees the method of the election – which has traditionally been by secret ballot;
- Councillors represent their Region/Centre – either using their agreed Committee's vote or changing their vote as per their Committee's instructions based upon the candidate's presentation or other factors;
- Honorary Officer members of Council have a free vote according to their preference (as Trustee) and considering the best interests of the Institute and its Strategic Plan;
- Council votes on the candidate and/or candidates and the election takes place;
- Council policy is that a candidate who is also a serving member on Council may not vote if there are other Candidates standing who do not sit on Council, this includes Honorary officers;
- Council policy is that Region/Centres do not have the right to send a proxy vote if their Councillor is standing for a position. It is the Councillor who carries the vote, or their deputy, in their absence. A serving Honorary Officer who is standing against a candidate who is not a member of Council forfeits their vote. This ensures equity and fairness;

- the President, as Chair, has the casting vote if there is a tie;
- the elected Member assumes the Officer position from the close of that year's AGM (normally in November), unless an Officer resigns from their position early, in which case the assumption is either immediate or from the date of resignation if later; and
- the results are then reported to the membership via the weekly ebuletin, *AT Journal* and Region/Centre Committee.

### When would I assume the position if I were elected?

All three positions take effect from the close of the 2019 AGM to be held in Glasgow on Saturday 9 November.

### Key dates summary

Call for nominations close

17 April 2019

Acceptances (or rejections)

10 May 2019

Manifestos/profile received

10 May 2019

Issue of candidates and their manifestos to all members via an ealert/update of election section of the website  
20 May 2019

Issue of candidates and their manifestos to Region/Centre Committees  
20 May 2019

Campaigning by candidates  
20 May – 6 September 2019 inclusive

Election ealerts and updates on the website  
20 May – 9 September 2019 inclusive

Election at Council  
7 September 2019  
Candidates advised if not in attendance at Council

Ealert announcing the election results  
9 September 2019

Assumption of position  
10 November 2018 close of 2018 AGM

### Further information

For further information or clarification contact Adam Endacott, Editor, [adam@ciat.org.uk](mailto:adam@ciat.org.uk) or call +44(0)20 7278 2206



# Architectural Technology: Professional Insight events

**Are you a student or recent graduate or work in practice? Would you like to find out more about Architectural Technology and meet those that are putting it into practice?**

**Look out for one of these events near you throughout 2019**

CIAT is hosting a free nationwide roadshow series of *Architectural Technology: Professional Insight* events throughout the year.

The event will provide inspiration and insight into a career in Architectural Technology.

Events will be promoted in AT Weekly and by email.



# Alex's Insights



Words by: Alex Narayan PCIAT

The built environment is a complicated sector with a broad spectrum of professions, skills and competences. This, at times, leads to lack of awareness and understanding by the public, which in turn can lead to some frustration particularly when some do not know or understand what a Chartered Architectural Technologist is. Whether it be the public or those in our own sector, we all share the desire for continued and increased profile of our discipline and profession to be a household name.

That desire is often driven by passion and an understanding of the value and necessity Architectural Technology brings to any built environment project.

In relation to this, I want to focus on four areas that are critically strategic to us in assisting in raising our profile and brand.

**Chartered Architectural Technologist is a protected descriptor — so please use it!**

If we want for everyone to know what a Chartered Architectural Technologist is, it is important that we promote ourselves and our discipline by us using the correct title. For example, on your LinkedIn profile, say that you are a Chartered Architectural Technologist. On your business card or email footer place under your name, Chartered Architectural Technologist; whenever the opportunity arises, put this under your name and do not shy away. If we are all consistent with title and persist, then there is uniformity of title and a much higher possibility of getting the message out there. Also, be prepared, patient and positive to explain what a Chartered Architectural Technologist is and the value that we bring to any project. There's plenty of resource available on the website for you to get toolled up for, and the Institute has a suite of fantastic documents which you can download for use (see page 17). The best advert and largest asset is you the member, be proud of your qualification, you have worked hard for it — why allow yourself to be compared to someone who is not qualified who cannot say they are a 'Chartered professional'. It is recognised, valued and has impact. It is also our collective responsibility to promote our discipline and profession.

## Networking

There are so many facets and layers to networking. You have probably heard the phrase, 'You have to be in it to win it'. Well, similarly, if you do not attend networking events, whether through CIAT or other, and connect with the outside world, you will fall behind. That, however, is a bit of an aside when you weigh up the pros versus the cons. The world has changed, no longer is there a place for the hard sell approach, this is culturally draconian.

## Raising our profile and brand

Networking is the new forum to win new business. A much softer approach, providing opportunity to forge new business relationships and in doing so, sharing with others what Architectural Technology is, its critical need and of course what a Chartered Architectural Technologist is.

There are many different types and formats of events to suit — from networking breakfasts to networking cycles. Really something to suit all, whether you are more a one-to-one type person or prefer mixing it up amongst a larger group.

Specialist qualifications:

**Chartered Environmentalist: a benefit of Chartered Membership**

I am not sure if you realise that CIAT is one of 25 professional institutions licensed by the Society for the Environment to register individual members as Chartered Environmentalists (CEnv). This is a broad church of professional disciplines not limited to the built environment; visit [socenv.org.uk](http://socenv.org.uk).

This achievement is no mean feat. It opens up much opportunity for our members to progress their career specialisms, whilst providing increased exposure for us. This qualification widens our reach and provides an 'equal place at the table' for us amongst Chartered Environmentalists.

The leg work for this to be recognised for our members has been completed in this regard. To have this recognition is such an achievement, but this will have true meaning as our numbers grow in this specialism. I encourage you to become a Chartered Environmentalist if this falls within your specialist area of expertise. The larger the membership, the wider our reach and increase in profile.

## Accredited Conservationist Register

Similar to the Chartered Environmentalist, CIAT's Conservation Accreditation Scheme is recognised by all the heritage funding agencies such as Historic England, Historic Scotland, Northern Ireland Environment Agency, Cadw (Welsh Government historic environment service) and The Heritage Lottery fund to act as the lead consultants on grant/fund aided projects.

For us, this really is immense, I now encourage any of our members who have an interest in this field to become Accredited. It can only help in raising the profile and providing opportunity for our members — [ciat.org.uk/membership/specialist-registers-cenv-con.html](http://ciat.org.uk/membership/specialist-registers-cenv-con.html)

So, I hope the above has sparked your imagination and that are encouraged to take some steps to raise both your and our profile and brand further. ■

# Republic of Ireland updates

## Building Control Regulations

S.I. 526 of 2018 - Building Control (Amendment) Regulations 2018 came into operation on December 17 2018. This amends certain provisions of the Building Control Regulations with regard to those types of development which require a Disability Access Certificate (DAC) and those which do not. It separates the previous connection between the requirement for a Fire Safety Certificate and the requirement for a DAC. It does not relax the requirement to comply with Building Regulations Part M - Access & Use in all proposed developments.

### Fire Safety Issues relating to Timber Internal Floors

The Building Regulations 1997-2017 set out the minimum legal requirements to ensure the safety and welfare of people in and about buildings. The Building Control Act 1990-2014 places a statutory obligation on owners, designers and builders to design and build works or buildings in accordance with the requirements of the Building Regulations.

The adoption of the Eurocodes as the appropriate suite of standards for the structural design of buildings/ structural elements inherently means that the fire performance of same must be demonstrated using European test standards (EN).

Internal floors (i.e. intermediate floors) in dwellings are now commonly being designed to incorporate void space within the floor, to allow for ease of service provision. These internal timber floors, constructed of solid timber joists or engineered joists must be tested to EN standards, in order to demonstrate compliance with the required fire resistance, as specified in Technical Guidance Document B - Fire Safety Volume 2 Dwelling Houses 2017 (TGD B Appendix A Table A1).

Industry has commissioned fire tests of timber internal floor constructions in accordance with the appropriate European Test standard, EN 1365 (series) Fire resistance tests for load bearing elements in accredited laboratories. Those internal floor constructions, which demonstrated, by test, their ability to meet the required fire resistance (as per TGD B).

Where internal floor constructions are encountered, that are not in line with the details outlined in the attached guidance, proof should be requested from the Assigned Certified/Design Certifier/Builder/Owner (as appropriate), to demonstrate how the floor as proposed/ constructed meets the requirements of the Building Regulations. Such proof should be in the form of fire test certification carried out by an accredited laboratory in accordance with the EN 1365 (series).

Further enquires be addressed to Colm Cahalan, Higher Executive Officer, Tel: (01) 888 2386 or Claire Manifold, Officer, Tel: (01) 888 2805 or by emailing buildingstandards@housin.gov.ie ■

## Max Abrahamson HonMCIAT

29/10/1932–7/10/2018



**“Max Abrahamson gave invaluable advice and assistance to the Republic of Ireland Centre over the years and was always supportive of Architectural Technologists and their campaign for recognition in Ireland. He was revered in Ireland as an expert on the Law as it applied to the Construction Industry.”**

Denise Germaine MCIAT, on behalf of the Republic of Ireland Centre

Max Abrahamson, who died in October, was one of the most remarkable lawyers of his generation working both in Ireland and internationally. Author of a leading textbook on engineering law, he consulted on construction projects in more than 60 countries and appeared as an advocate in arbitrations and higher courts in 25 countries.

He received Honorary membership on 14 April 1999 in recognition of his invaluable role in support of the Institute, helping to raise the profile of the membership and Institute in both the UK and particularly in the Republic of Ireland. He always described himself as ‘a friend of the Institute’.

From 1973, he practiced in Dublin in association with the commercial law firm McCann FitzGerald, with whom he merged his practice in 1991. Abrahamson continued as a consultant with that firm until 2014. He was also a consultant to Baker & McKenzie, the international law firm. In addition to his work nearer home, such as the Jack Lynch tunnel, the West Link toll bridge, the International Financial Services Centre, the first Luas project in Dublin, the Heathrow rail tunnel and Eurodisney, he advised on projects in China, Singapore, Hong Kong, Bahrain, Botswana, Lesotho and Pakistan among other places. ■

## Membership News

### Chartered Members

We would like to congratulate the following members who successfully attended their Professional Interview and have attained Chartered Membership, MCIAT:

032598	Paul Booth	Yorkshire, 02
032462	Thomas Dobby	Yorkshire, 02
027723	Christian Richards	Yorkshire, 02
022933	Charlotte Fenn	North West, 03
021343	Kieran Roberts	East Midlands, 04
018603	Daniel Crann	West Midlands, 05
026847	Callum Dennis	West Midlands, 05
027509	Andrew Fisher	West Midlands, 05
032135	Mariyana Hartland	West Midlands, 05
015902	Richard Hill	West Midlands, 05
033451	Sukhvir Lall	West Midlands, 05
022304	Stephen Lewis	West Midlands, 05
033335	John Medley	West Midlands, 05
027473	Christopher Riley	West Midlands, 05
020008	Richard Ward	West Midlands, 05
019041	James Angus	Wessex, 06
031489	Vincent Cochran	Wessex, 06
025599	Christopher Davey	Wessex, 06
027216	Liam Leonard	Wessex, 06
022006	Mark Wiltshire	Wessex, 06
017902	Simon Chadwick	Central, 08
024629	Emmet O'Sullivan	Central, 08
032192	Azahara Bello	Greater London, 09
0000063	Sally Keogh	Greater London, 09
027965	Ross Nunn	South East, 10
017546	Niall Bougourd	Channel Islands, 11
032540	Tim Mulvihill	Republic of Ireland Centre, C2

#### Welcome back

We would like to welcome back the following Chartered Members:

020849	Daniel Tomlinson	Yorkshire, 02
025066	Roy Dent	North West, 03
018330	Paul Brana-Martin	Wessex, 06
011151	Anthony Doody	Central, 08
028460	Joseph Elliott	Western, 12
024776	Michael Quirke	Republic of Ireland Centre, C2

#### In memoriam

We regret to announce the death of the following members:

034556	Russell Smith	East Anglia, 07
014721	Max Abrahamson	Republic of Ireland Centre, C2

#### Accredited-Conservationists

We would like to congratulate the following members who successfully attained their reaccreditation for the next five years:

010001	Des Cairns
008705	John Halton

#### Amendments to Building Regulations in England

Members are reminded that two notifications were issued by CIAT advising of amendments to Building Regulations in England. It is important for members to be aware that the first tranche of changes came into force 21 December 2018, these primarily affect Regulation 7 and Approved Document B and 7 of the Building Regulations. In particular, the definition of the ban of combustible materials.

To avoid confusion, a second letter was issued by MHCLG on 18 December 2018 advising of the publication of the updated Approved Document B together with further amendments and confirming the enforcement date of 21 January 2019 for these amendments. The letter including links and transitional arrangements for clarification along with a summary of amendments to Approved Document B can be downloaded from: [ciat.org.uk/resource/amendments-to-building-regulations-in-england.html](http://ciat.org.uk/resource/amendments-to-building-regulations-in-england.html)

#### Code of Conduct

Included as an insert in this Journal is your copy of the Code of Conduct, effective from 1 March 2019. Please refresh yourself with this updated Code.



## AT CPD Register Directory

For full details please visit [ciat.org.uk/education/cpd/cpd-register.html](http://ciat.org.uk/education/cpd/cpd-register.html)

### CDM

#### JRA CDM

This one-day, interactive, introductory course will equip delegates with the knowledge and understanding to undertake the new CDM2015 Principal Designer role on small and medium sized projects.

**Cost/fee for attendance:** £150.00

**Contact:** James Ritchie  
E: [james@jamesritchie.com](mailto:james@jamesritchie.com)  
T: 07785915687  
[jracdm.com](http://jracdm.com)

### BIM

#### BIM Strategy and Concepts (ACM015) and BIM Application (ACM016)

Learning will take place through the Robert Gordon University virtual campus with a mix of online lectures, tutorials and self guided study. Each topic within the module will have a number of self required and obligatory activities aimed at emphasising the learning.

**Cost/fee for attendance:** £600 per module

**Contact:** Professor Richard Laing  
E: [r.laing@rgu.ac.uk](mailto:r.laing@rgu.ac.uk)  
T: 01224 263716  
[rgu.ac.uk/bim](http://rgu.ac.uk/bim)

#### How Virtual Reality saves time and resources (VR for Architecture)

To demonstrate how the sensation of actually being inside a building makes VR a powerful and money saving tool for communicating design intent.

**Cost/fee for attendance:** a nominal fee of £10 for the VR viewer

**Contact:** Scott Berry  
E: [scott.berry@applecoredesigns.co.uk](mailto:scott.berry@applecoredesigns.co.uk)  
T: 0121 447 7788  
[applecoredesigns.co.uk](http://applecoredesigns.co.uk)

### Building Regulations

#### Reducing the Performance Gap Through Fabric First

The presentation will improve understanding and confidence regarding insulation and how it is used; how its performance is measured; the role of the designer/specifier in ensuring that manufacturers provide accurate U-value calculations and

condensation risk analyses; and where insulation works with airtightness and thermal bridging details to contribute to a 'fabric first' approach.

#### U-value Calculations and Condensation Risk

This presentation will improve understanding and confidence regarding insulation and how it is used; how its performance is measured; the role of the designer/specifier in ensuring that manufacturers provide accurate U-value calculations and condensation risk analyses; and where insulation works with airtightness and thermal bridging details to contribute to a 'fabric first' approach.

**Cost/fee for attendance:** free to groups/practices

**Contact:** Lee Buckley  
E: [buckley.lee@recticel.com](mailto:buckley.lee@recticel.com)  
T: 01782 590470  
[recticelinsulation.co.uk](http://recticelinsulation.co.uk)

#### Rainscreen Cladding: Compliance with BR135

Topic areas for this CPD course include Rainscreen Cladding, BR135 and Fire Performance of External Thermal Insulation for Walls of Multistorey Buildings.

#### Part L1A 2013 - Fabric Performance and Towards Passive, NZEB Targets

Topic areas for this CPD course include Building Regulations - Part L1A 2013 targets and corresponding specifications, Thermal Bridging and Airtightness Targets.

#### Section 6 2015 Scotland – Fabric Performance and Towards Passive

CPD topic areas include Building Regulations - Section 6 2015, Thermal Bridging and Towards NZEB/Zero Carbon House/Passive Standards.

#### Conventions for U-value Calculations – In accordance with BR443

Topic areas for this CPD course include Standards for U-values Calculations, Fabric Performance, Thermal Measurement and BR 443 Conventions.

**Contact:** Linda Smith  
E: [marketing@xtratherm.com](mailto:marketing@xtratherm.com)  
T: +353 46 9066079  
[xtratherm.com](http://xtratherm.com)

### Materials

#### Low carbon GRP daylight solutions for the metal building envelope

The seminar delivers an understanding of how rooflight choices in relation to key performance requirements can impact on the overall contribution rooflights can make to the metal building envelope.

**Cost/fee for attendance:** free

**Contact :** Nicola Hancock  
E: [nicola.hancock@ncsservices.co.uk](mailto:nicola.hancock@ncsservices.co.uk)  
T : 07956 847533  
[hambleside-danelaw.co.uk](http://hambleside-danelaw.co.uk)

### Other

#### Using Drone Technology within architecture

This half-day, interactive, introductory course will equip delegates with the knowledge and understanding of how the latest advances in drone technology are changing and enhancing traditional architectural working techniques.

**Cost/fee for attendance:** £49.00

**Contact:** Ian Tansey  
E: [ian@prodroneworx.co.uk](mailto:ian@prodroneworx.co.uk)  
T: 07805 864642  
[prodroneworx.co.uk](http://prodroneworx.co.uk)

#### Loft insulation isn't working – what can we do about it?

A one-hour online CPD module by LoftZone will explain the 'in-use factors' that limit the effectiveness of loft insulation; the research by the National Physical Laboratory and Carbon Trust that show how widespread these factors are; traditional insulation and building methods which are no longer appropriate; alternative techniques to maximise insulation performance; specific design considerations and a U-value calculator and safety requirements in lofts.

**Cost/fee for attendance:** free

**Contact:** Dave Raval  
E: [cpd@loftzone.com](mailto:cpd@loftzone.com)  
T: 01483 600304  
[loftzone.co.uk](http://loftzone.co.uk)

#### BREEAM Associate

This BRE Academy course has been designed to help understand, in depth, the essence of what BREEAM is about, what it involves, and how to successfully support the BREEAM process day to day.

**Cost/fee for attendance:** £195

[breeam.com](http://breeam.com)

**Celebrating  
Architectural  
Technology at its  
best, nationally  
and internationally**

**AT  
AWARDS**

**Designed to recognise excellence in Architectural Technology globally, the suite of AT Awards are open to all professionals, whether they are based nationally or internationally.**

Award categories:

#### **Practice AT Awards**

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Designed to recognise excellence in Architectural Technology globally, the Practice AT Awards are open to all professionals, whether they are based nationally or internationally. They comprise of two categories:

- The Award for Excellence in Architectural Technology
- The Alan King Award for Excellence in Architectural Technology for projects with a value no greater than £750k<sup>1</sup>

#### **Student AT Awards**

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The Student AT Awards are open to students, whether they are based nationally or internationally. They comprise of two categories:

- The Student Award for Excellence in Architectural Technology (Project)
- The Student Award for Excellence in Architectural Technology (Report)

#### **Chartered Architectural Technologist of the Year**

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The Chartered Architectural Technologist of the Year Award is an annual Award for excellence in the technology of architecture as a Chartered Architectural Technologist.

Assessment is based upon the innovative application of Architectural Technology against a set criteria for each Award. Judges will look for robust and functional designs that are:

- constructed economically;
- environmentally sustainable; and
- of durable performance.

**See [ciat.org.uk/awards.html](http://ciat.org.uk/awards.html) to find out more and to enter**

AT Awards event, 13 September 2019, Village Underground — tickets now available

Find out more and enter at  
**[ciat.org.uk/awards.html](http://ciat.org.uk/awards.html)**  
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