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ARCHITECTURAL TECHNOLOGY

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Editor's foreword

CIAT members are highly adaptable in an era of rapid change

Everyone has heard the famous quote, attributed to the nineteenth century UK Prime Minister Benjamin Disraeli, that there are 'lies, damned lies and statistics.' We need, therefore, to take care when analysing statistical data and put it to positive use. This has certainly been done in the in-depth new report from Robert Adam's architectural practice about the future of homes in the UK in this issue.

Professor Adam gave his address at CIAT's 'Tomorrow's Thinking' event held earlier this year as part of the London Festival of Architecture. In it he stresses the importance of projected statistics when designing our built environment. How will people live and work in the years to come? Assuming you do not believe in crystal balls or tealeaves, statistical projections are an important tool and their use should not be restricted to number-crunchers in obscure government departments.

Whatever the predicted demographic changes bring, however, you can be sure that Architectural Technology professionals will be there to respond in the best way. One of the great things about our discipline is that its practitioners are practical and not tied to any particular design ideology, making them highly adaptable and able to match old methods to new requirements.

Such Members include Toni Page MCIAT (page 10) who is using lime mortar in new build construction, and Lawrence Coussell MCIAT (page 30) who has taken a redundant stable block in an Norfolk house and bought it back into practical use. Members are also in the forefront of BIM technology and on page 18 Keith Snook HonMCIAT outlines the spread of British BIM know-how abroad.

CIAT is committed to such innovative ideas and as part of this, it has launched the CPD Register, which aims to give members approved modules as options to aid their professional development. You can read about this on page 36.

All members should have received a copy of the Annual Review with this issue. If you have not received yours, please email info@ciat.org.uk or telephone +44 (0)20 7278 2206.

Hugh Morrison
Editor

Tomorrow's Thinking

Panel discussion

CIAT's headline event at the London Festival of Architecture featured presentations and discussion of the communities of the future.

In June the Institute was a partnering organisation with, and took part in, the London Festival of Architecture (LFA) for the first time. The Festival began in 2004 as the London Architecture Biennale and has evolved into a month-long event in London's architectural and construction industries' annual calendar. The Festival has become a celebration of architecture through a diverse and growing range of events put on by leading architectural, cultural, and educational organisations and institutions at various venues across the capital.

This year the Festival's theme was Community and aimed to connect with as many people as possible to demonstrate architecture's relevance to London and its diverse communities. As part of the Festival, on 28 June, CIAT held an event and panel discussion, 'Tomorrow's thinking: robust spaces in a changing community' at the University of Westminster.

Speakers included Robert Adam of ADAM Architecture, James Engel MCIAT of Spaced Out Architecture Studio and Jamie Collins ACIAT from FaulknerBrowns. Bringing together recent research and projects, the speakers probed how the physical fabric of buildings and spaces could keep up with, and respond to, constant transformations and the ever-evolving user, and whether this was even possible.

The Panel, chaired by Virginia Rammou MCIAT, Senior Lecturer and Course Leader of Architectural Technology at University of Westminster, also brought in researcher Lily Bernheimer and Craig O'Halloran MCIAT from Gensler and raised a range of industry-based concerns, as well as social and economic issues associated with changing trends and patterns of how we live and work. This event provided a unique platform for discussion of the role of Architectural Technology in a society experiencing constant change.

Robert Adam, one of Britain's foremost classical architects, revealed research into emerging social trends and their impact on the built environment. This is is summarised in this issue after this article.

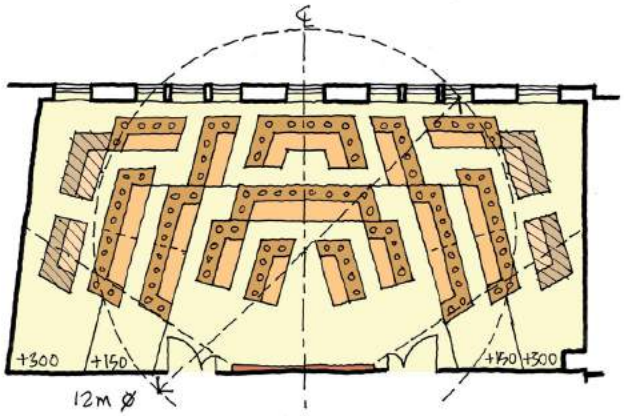
James Engel MCIAT talked about the 'collaborative consumption revolution' which has the potential to transform architecture with innovative ideas on sharing space. The presentation focused on the Godson Street development in north London. The RIBA, when giving the development its London Award, described it thus: 'Godson Street is a distinctive and original piece of form-making. An innovative mixed-use scheme, the design's striking geometry and subtle colour palette make it an arresting addition to the local landscape. The partners have transformed Godson Street, with the project emerging from a disused and rubbish-filled site into an eye-catching addition to the city.'

James spoke about how the development has updated the pre-industrial idea of 'living above the shop'; a concept that gradually died out with the advent of railway commuting in the nineteenth century but which has now become


Godson Street, London N1


Professor Robert Adam


James Engel of Spaced Out



Optimum lecture theatre layout by FaulknerBrowns

relevant again as urban environment increasingly require mixed use of space. The well known model of commercial building with residential above has been adapted in an innovative way. Zinc exteriors give an unusual contemporary appearance. Interior include frosted glass for privacy due to overlooking, but rooms are filled with light. The arrangement of the terrace in a saw-tooth pattern enables each residence to have views down the street.

Jamie Collins ACIAT gave a fascinating insight into design research in educational spaces, and how it has produced new ideas of community and learning for Newcastle University. FaulknerBrowns' Into Line East scheme is a part newbuild, part refurb extension to university buildings which drew on research from Harvard, MIT and Yale universities in the USA. Representatives of FaulknerBrowns met with users and designers from all three universities to review a range of different teaching facilities and teaching techniques. The research trip identified three types of teaching and learning with attendant seating plans: traditional, macro-collaboration, and micro-collaboration. The designers came up with a seating plan (shown above) which combines the best of all three types to make the optimum use of space. Jamie also spoke of the challenges of exterior design which include a glass box with no visible means of support, which was silicone bonded direct to a sub-frame.

The panel discussion focused on collaborative consumption and new ways of designing to reflect the realities of today's home-life balance. Some interesting points raised in the discussion were:

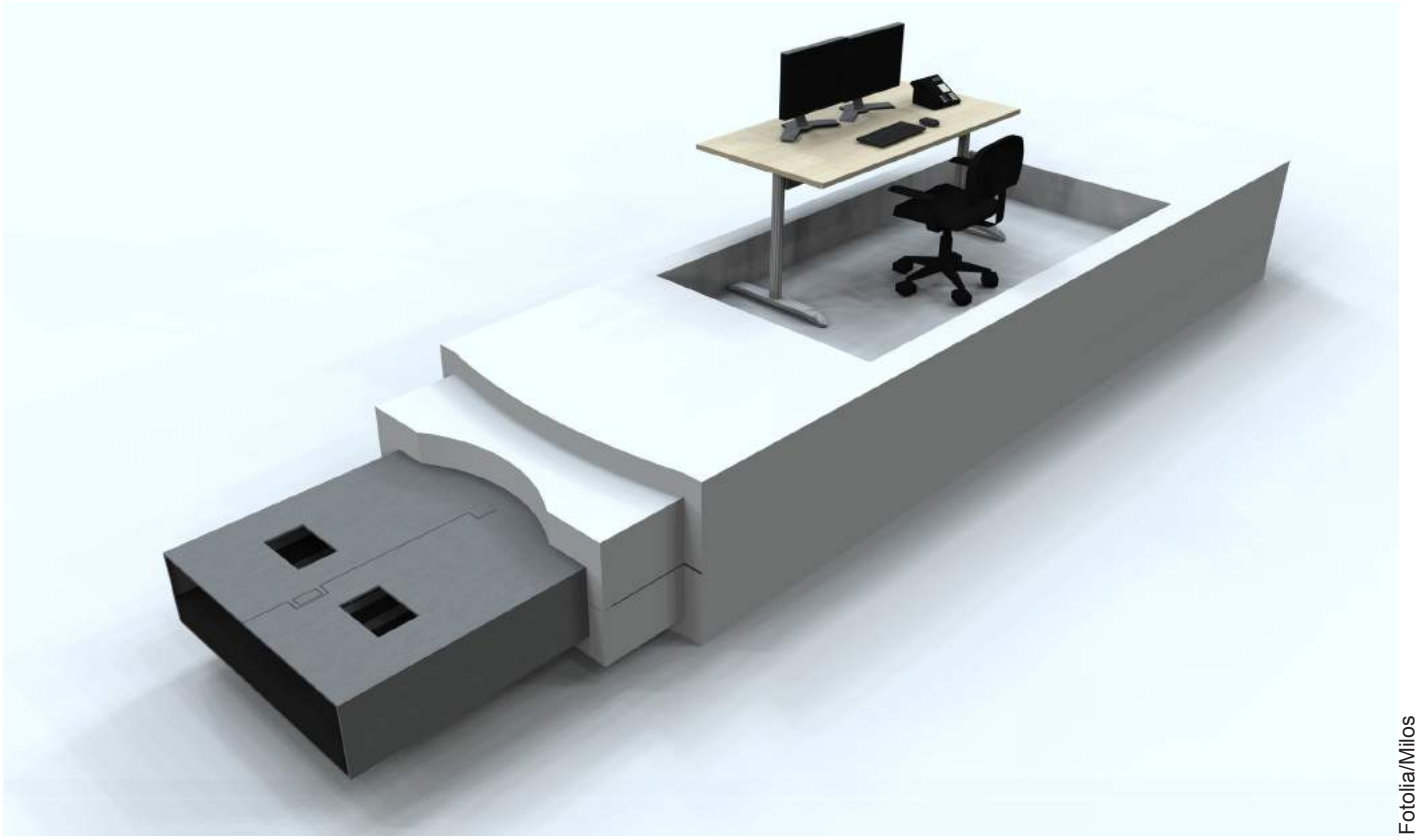
Work/life balance: The 1970s idea of 'telecommuting'; (workers interacting only online) does not seem to have been fully realised and this is probably a good thing. Instead, a more balanced and flexible pattern of working partly at home and partly from an office seems to be emerging.

Cultural awareness: Housing densities are increasing, but designers need to be aware that tolerance of density varies from one culture to another. British people, in general, tend not to prefer high density housing, but when there is more interaction in a community and people know their neighbours, tolerance increases for higher densities. Thus, interaction in communities is key.

Optimum densities: Increased awareness of 'Dunbar's Number', the supposed limit to the number of people with whom one can maintain stable social relationships (thought to be around 150 persons) will have an influence on what sort of communities planners and designers will develop in the future.

Isolation and social media: As social media use spreads across all age groups, in the future the problem of social isolation of the elderly may become less prominent and this may be reflected in changing housing design for older people. 'Smart home' technology may also change the living arrangements of the older generation, giving greater independence, particularly as families become smaller and live further apart.

Tomorrow'



Fotolia/Milos

At CIAT's 'Tomorrow's Thinking' event, architect Robert Adam summarised the findings of the 'Tomorrow's Home' report into social trends and their impact on the built environment. By **Lily Bernheimer** of Space Works Consulting.

Both socially and spatially, people have dispersed, individualised and are now drawing back together in new types of nodes and networks. This shift towards individual collectivism is evident in the resurgence of cities. Individual collectivism is a reaction to the individualised lifestyles of the latter twentieth century and the economic and environmental realities of the twenty-first century. So while driving is in decline and solo-living has stagnated (hence the oversupply of small flats), public transport and co-working spaces are burgeoning. This shift may be the distinctive imprint of the Millennial generation, just as the move towards suburban houses and cars was for their parents.

Major cities are drawing in more people, especially the young and this is transforming their work and social lives. Population has grown in almost all UK cities since 2001, topped by Manchester, Milton Keynes and Peterborough. As the official designation is somewhat arbitrary, 'city' is defined here in terms of the 59 largest cities, towns and functional conurbations in England and Wales. Millennials are far more likely to live in cities and flats and far less likely to own and travel by car than recent generations were at the same age. As 18-21 year-olds are pouring in by year and major growth is projected for 20-34 year-olds living and renting in large cities. Millennials are far more likely to live in cities and flats and far less likely to own and travel by car than recent generations were at the same age.

Economic, tenure and social trends suggest that city-living isn't a blip for this generation. More Millennials are likely to live in cities for longer spans of their lives, because more are deferring or declining family formation and because many young families won't be able to afford to buy in first-tier suburbs and countryside areas. This demographic shift towards more young adults and young families will require different services and functions from cities.

Downloadable lifestyles, uploading cities

Millennial lifestyles seem increasingly downloadable. Renting, moving frequently, plugging into different workspaces and opportunities, and meeting up on the go, mean that young adults' work and personal lives are ever more detached from distinct long-term spaces. Finding flatmates through sites like Gumtree, work opportunities through Twitter, or dates through mobile apps like

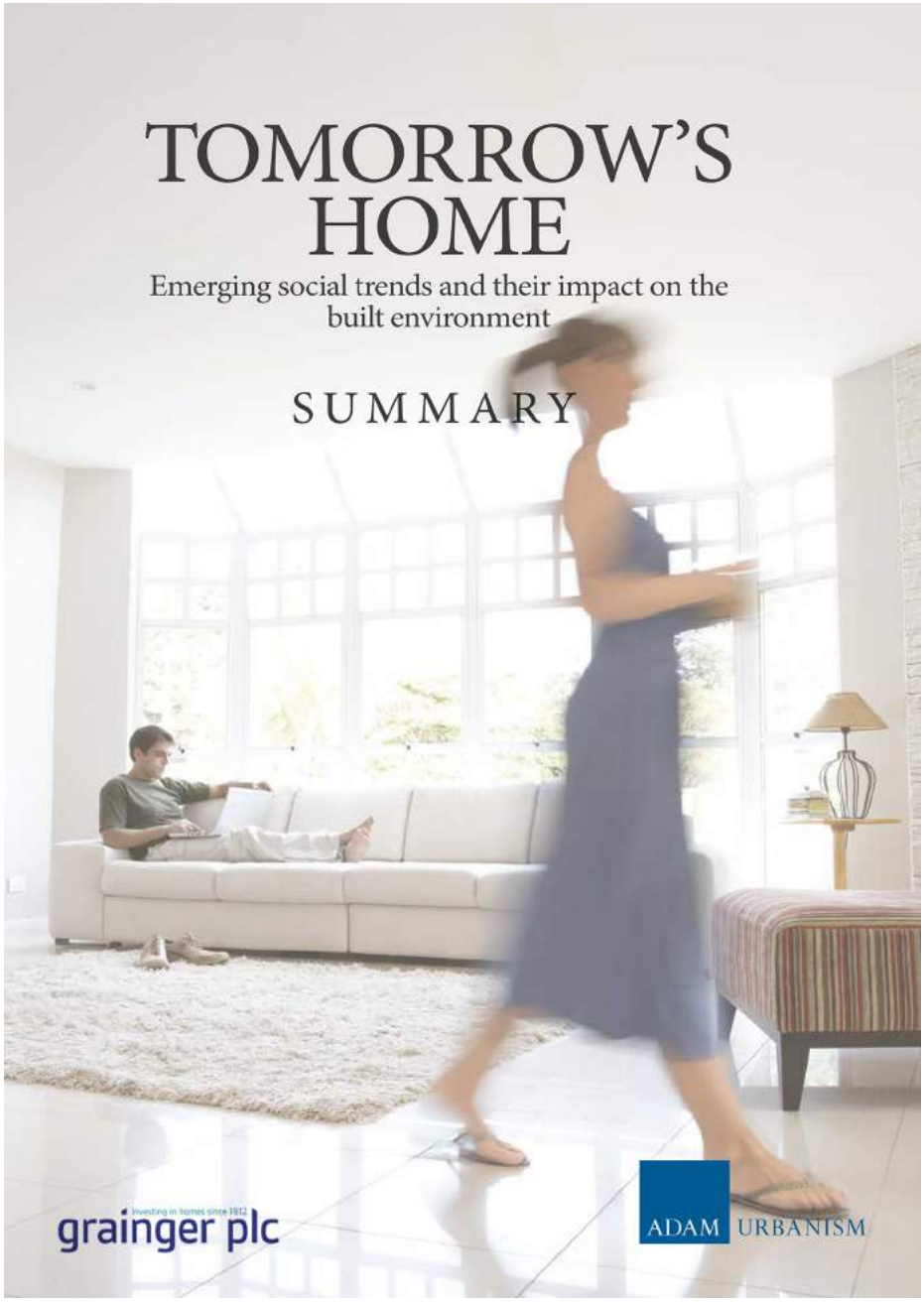
's home

Tinder, means that digital technology is the driving force enabling this generation to live in a way that is at once collective and individual. One of the Joseph Rowntree Foundation's most compelling findings about the segment they call 'Young Professional Renters' is that they see shared housing as a life choice rather than an unfortunate economic necessity.

These downloadable lifestyles also require uploading cities, a trend we're seeing in the flexible, collective spaces and systems of the workspace and public realms, ranging from bikeshare and hotdesking to the explosion of public festivals and markets. A higher proportion of young city-dwellers postponing family formation while they focus on careers and saving for mortgages may require an interactive and flexible public sphere along the lines of phone booth WIFI hotspots, later-running public transport and spaces to recharge physically and electronically. Shrinking offices and growing populations also mean that city centres are becoming more residential, requiring amenities for the nights and weekends as well as lunchtimes. The highest residential growth in the UK is now projected for the City of London, followed by other central boroughs such as Tower Hamlets and Southwark.

The residential sector has already individualised in the form of small cellular flats, high security infrastructure and home-based living amenities, but has been less responsive to the collectivist component of this trend. The growth of living alone has been greatly exaggerated. Only half of 'single-person households' are actual solo-dwellers and the slowing decline of household size also tells us that people are sticking together. 'Other households', which include students and other groups of adults sharing accommodation, are projected to grow 20% between 2011 and 2021 and we are likely to see a growing demand for housing to accommodate this sector. As dwellings have shrunk and become spaces of individual leisure and labour rather than socialisation,

'Downloadable lifestyles also require uploading cities...'



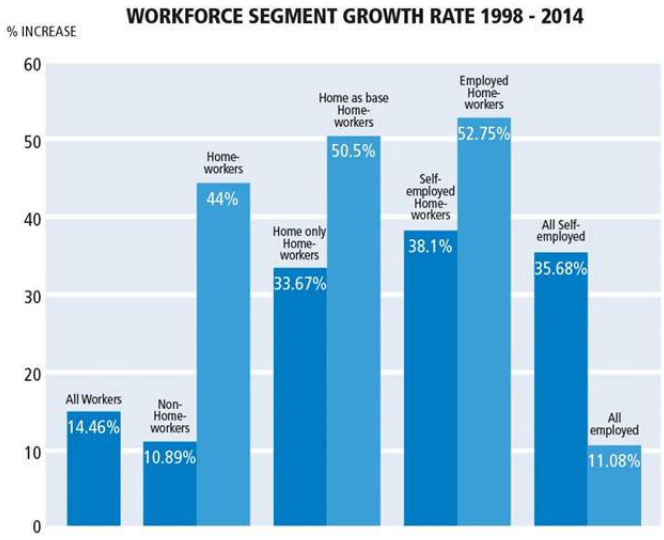
developments that offer well-managed communal facilities are likely to be sought after. With no room in flats to start a social enterprise, throw a dinner party, or store a surfboard, cities will need to absorb and accommodate these functions in other ways. Integrated live/work developments, workhubs and entities like community centre gardens might foster better shared space by building community, management systems and vested interest. Extending the success and popularity of the sharing economy model will be an innovative area of growth to fulfill

Millennials' unmet needs for green space, social space and storage space. It is also clear that the private rental sector will increasingly be the only tenure available to many young families, particularly in London. All of the housing pathways involving young family formation identified by the JRF (11% total in London and the South East) are projected to rely more heavily on the PRS. The growing group of career-oriented mothers in their early and later 30s are also likely to be more PRS-dependent as ownership slips further into the future. Longer-term private rental tenure for families is expected to produce a new set of needs from these dwellings and their neighbourhoods, such as outdoor play space, greater storage capacity and a layout that is suitable to family life.

The impact that these trends have in London and other large cities is also likely to differ from that in smaller cities. Housing need is usually discussed at the national level, but housing markets are more deeply defined by the local context of supply and demand. Thriving cities like Manchester, Oxford and Nottingham are predicted to see continuing strong demand for more housing. However, with both suburbs and major cities becoming more expensive, second- and third-tier cities may become increasingly appealing places to live. Growing population in such cities may call for the upgrading of existing housing stock, improving public transport and investing in broader quality of place.

Mega/micro commuting

Commuting patterns tell two stories; commutes are reaching increasing extremes, either from Lincolnshire down to London, or simply from the bedroom to the kitchen table. In line with overall transportation trends, commuting has shifted to be longer and less frequent as teleworking and homeworking have



grown over the past two decades. Between 1995-97 and 2011, the total number of commuting trips decreased 16%, but the average length of each trip went up by 9%.

People are commuting longer distances, but are also working from home or other places more often. The feasibility of daily commute to the nearest city is losing influence over residential choice, replaced by sporadic access to major hubs, particularly London. The reach of functional metropolitan regions is expanding and overlapping to operate more like one single mega-region. England's small size, high density and highly developed transport network, now combined with flexible employment trends, mean that many workers might live almost anywhere in the country while maintaining frequent contact with a main office, clients or colleagues. The 're-working' of residential geography – employing a combination of mega and micro commutes – is viable here in a way that it isn't in China or the United States.

Mega/micro commuting bodes well for sustainability, economic development and even work/life balance. Decentralisation initially leads to longer commute distances, but people and employment rebalance as they spread out, leading to shorter journeys. When enough people move further out to support local services, transport patterns tend to localise. The upsurge in flexible working is the key factor expected to drive this transformation further. The homeworking workforce has increased by 44% since 1998, while traditional commuting employees grew by less than 11%. The growth of flexible working arrangements of all types is likely to escalate, as Millennials become a larger and more influential part of the workforce. The growth of the knowledge economy, part-time work and various individualised employment structures are building a labour market that is increasingly flexible and untied from regular daily commuting. The knock-on effect of mega/micro commuting has been an 8% overall decrease in miles travelled to work since the 1990s. Fewer miles on the road will be beneficial to local economies and also to the national economy as the congested transport network has been identified as a threat to the future of British economic development.

The end of the dormitory suburb

The blurring of living and working spaces we have seen so far forecasts an evident decline of the entire dormitory suburban model. Dormitory suburbs have been defined by their virtually exclusive residential use-type, a category including the largely residential areas of small towns. Many Millennials will still aspire to the ideal of the suburban house and mega/micro commuting may make this possible by opening up more affordable housing options further from centres of lucrative employment.

These demographic and cultural shifts mean that dormitory suburbs are becoming less exclusively residential. The combined rise of flexible employment trends, a resurgence in inner-city living and change in transport behaviour reveal a shifting landscape, one where dwellings and workspaces are more closely interspersed in cities, town centres and suburban and rural settings. The functional and geographical separation of the dwelling from industry began during the industrial revolution, but the extreme of the post-war dormitory suburb

may turn out to be a twentieth century anomaly.

As dedicated space per person in offices is shrinking, space per person in the dwelling has grown, reflecting, in part, the movement of work activity into the home. 41% of all UK businesses are now run from home and 55% in rural areas. Whether this means literally working from home, a workhub, or more bespoke live/work units, these developments are all part of the shift that many see as a re-working of the pre-industrial proximity of living and working spaces.

Although mega commuting has sometimes been blamed for sprawl and 'placelessness', micro commuting may be a great tool for place-making and revitalisation. Live/work researchers such as Tim Dwelly have found a strong UK market for clusters of dual-use units, which can afford homeworkers a greater degree of professionalism, contribute to local economic development and mitigate the isolating potential of individualised employment. Specialised live/work communities can function like residentially integrated workhubs, though this may involve some policy updates to be feasible in terms of mortgages, taxation and planning controls.

Changing living and working patterns clearly show that the notion of residential developments as places where people go just to sleep is on the decline. We are likely to see people spending more time where they live, which will lead to a need for different types of local services. The prospect of home-based working is a particular motivation for aspiring to 56% of men) and for those over 35 because of the importance of family life for these groups. Additional round the clock activity may require and support services such as cafés, crèches and shared facilities for printing and other office equipment. Strong public transport from both conventional service providers and the sharing economy sector, will be crucial to meet the needs of a generation with lower rates of car travel and ownership.

Homeworking is forecast to be particularly important to economic development in rural areas, where it already represents 18.88% of the workforce. The rural market is largely for highly tailored units for the self-employed and small businesses, rather than home-working employees. However, employed homeworkers will be important to consider going forward. This sector grew by 52.8% between 1998 and 2014, faster than any other part of the workforce. In market towns there is a strong market for live/work districts; combinations of mixed-use units and workhubs. Finally, live/work development may be especially important to consider for new settlements and the government have already called for such provision in 'Eco-Towns' and specific sites such as Thames Gateway. Workspace and residential facilities can bring a new function to regenerate hollowed-out high streets across the board as shopping moves online.

The new housing ladders

Overall, it seems we're seeing two potentially divergent trends: mega/micro commuting may allow Millennials living by dwelling farther from cities, or their city orientation may prevail as they start families, or don't. The dual-earner model and women's increasingly important role in the labour market may play into both of these patterns. The dormitory suburb was based on the twentieth century model of a single-earner going to work in the city while mothers stayed home with children. Many Millennial mothers (especially for the older segment likely to maintain existing careers) may prefer to stay in cities, with easier access to employment. Alternatively, homeworking in a new, more mixed-use type of suburb may be seen as an ideal work/life balance for part-time working mothers.

While these two visions might seem to be at odds, what they share is an end of the twentieth century dormitory suburban model of family and work life, housing and social interaction. It remains to be seen whether Millennials will follow in their parents' footsteps regarding housing aspirations and driving behaviour as they age, or whether their differing preferences will persist. But the economic and environmental forces facing this generation are so altered that forging a new and varied set of housing ladders seems certain. The future will likely see a combination of Millennials climbing both the ladders we have forecast.

Perhaps the more crucial question than whether Millennials will favour suburbs or cities is whether this dichotomy will continue to define our lives and landscapes in the same way. Transportation and social interaction patterns have both shown that as new technologies enable people to disperse, they are also regenerating and reorganising connections and economies on the local level.

Millennials will inevitably leave their own imprint on the British landscape, but if the built environment is responsive to these changing social patterns, that impact may have great economic and environmental benefits for broader society. As Joel Ravetz writes, 'such changes in uses and users can reach a "tipping point" where radical building forms or adaptations are realised in design solutions'. The change in uses and users of dwellings and settlements in England and Wales is well underway and forward-thinking designs and adaptations are needed for the built environment to respond.

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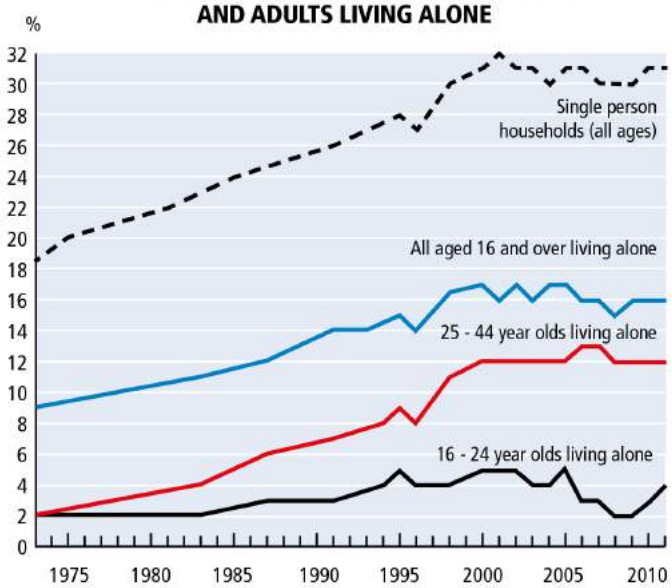
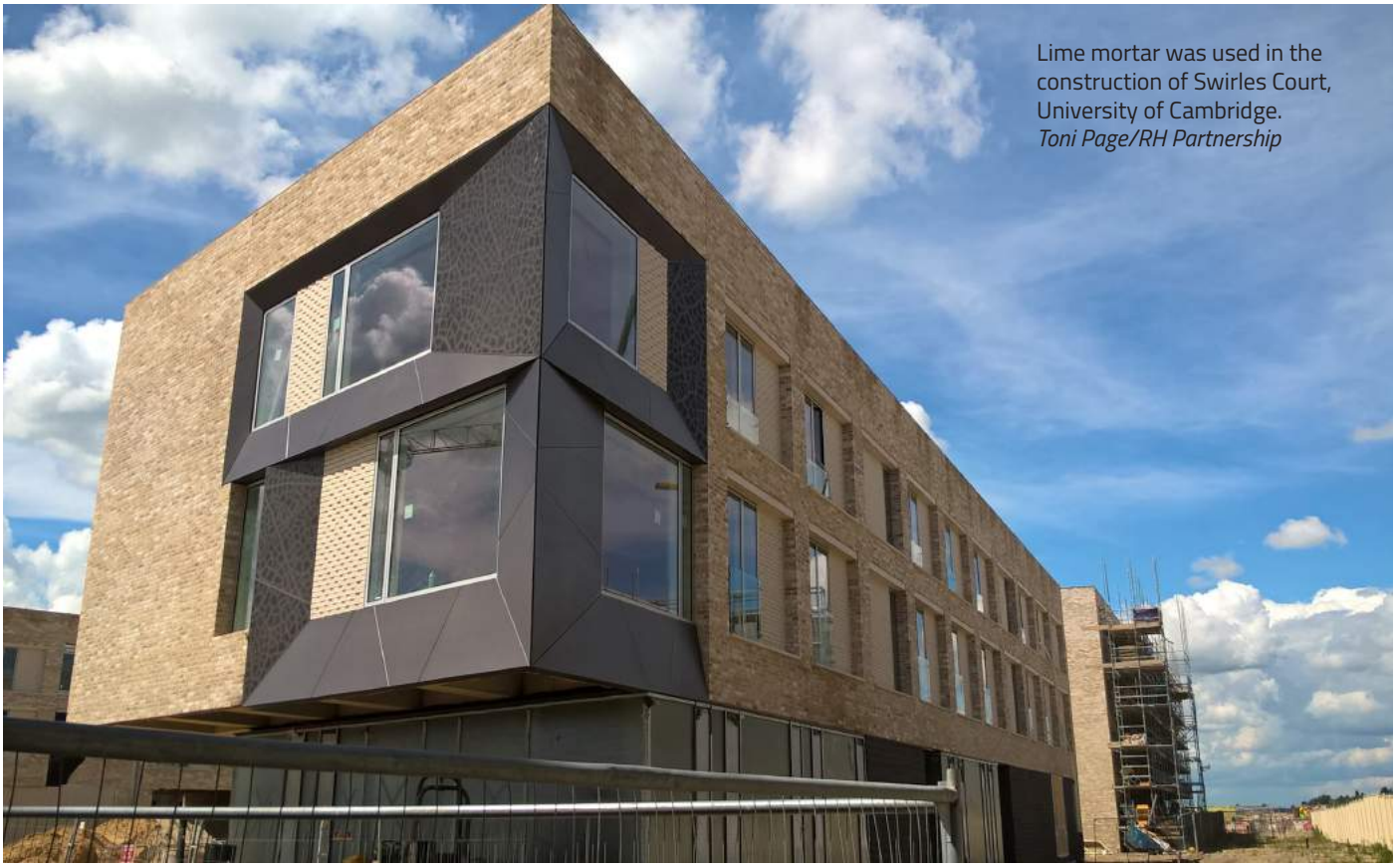
PERCENTAGE OF SINGLE PERSON HOUSEHOLDS AND ADULTS LIVING ALONE



What's m

Toni Page MCIAT, Chartered Architectural Technologist and CIAT-Accredited Conservationist at RH Partnership Architects looks at how lime mortar is being used in new build projects as well as in conservation.



Lime mortar was used in the construction of Swirles Court, University of Cambridge. *Toni Page/RH Partnership*

The benefits of lime have been well known and accepted for several decades in the conservation of historic buildings. This is primarily due to the breathability of lime based materials; their vapour permeability enables moisture to breathe out of wall constructions after absorption. This has made lime the ideal binding medium for mortars, external renders and internal plasters for centuries. Lime mortars are known to have been used in Roman times, with Vitruvius in first century BC making reference to lime mortars in his *Ten Books on Architecture.*

Lime as a base building material is derived from burning quarried limestone. Hydraulic lime (NHL) derives from limestone containing natural clay impurities which promote a chemical set in addition to carbonation. Pure lime derives from limestone which has no (or minimal) impurities and achieves a 'set' in the presence of water and CO_2 through carbonation. The most well-known sources for NHL are Blue Lias in the south west of the UK and St Astier in the south of France.

When mixed with sharp sand (as the aggregate) and water, the NHL lime achieves its chemical set. NHL grades are defined by BS EN 459-1 Building Lime. Definitions, specifications and conformity criteria, as NHL 2, NHL 3.5 and NHL 5. These ratings relate to how quickly the lime achieves its particular strength over a given period – the higher the rating the greater the strength. Mix ratios are usually between 2.5:1 to 2:1 sand:lime in facing brickwork. This ratio needs to be varied according to the NHL grade used, exposure, geographical location, loadbearing requirements, whether the mortar needs to match an historic precedent for performance or appearance and frost resistance needed. Consequently lime mortar is often a bespoke mix to suit the individual project.

Lime can be a little temperamental during its lengthy curing process – it likes to be kept warm, above 50C, but not too hot, not too wet and not too dry, so using lime during the British winters and summers requires care and suitable protection measures. In the summer this would consist of regular damping down of hessian covering, and protection from drying winds and direct sun. This ensures a moist environment to prevent premature drying out and insufficient

y lime?

Lime mortar was used in the construction of Newnham College Buttery, Cambridge (above). *Toni Page/RH Partnership .*

set occurring. During winter, scaffold shrouding and portable heaters can be brought in to prevent frost damage to newly laid mortars.

However, since the patent of Portland cement in 1824 by William Aspdin, and subsequent firing of modern Portland cement in 1845 by Isaac Johnson, Ordinary Portland Cement (OPC) has become the preferred material for new build projects. This is because cement has a quicker set when compared with lime mortars and can be used at lower temperatures – as low as +3°C. It doesn't need such extensive protection measures as lime but nevertheless can be affected by temperatures being too low or too high. Cement's ease of use, combined with improvements in kilns allowing more frost resistant bricks, led to the almost disappearance of lime mortar for new projects. However, there is a resurgence in the use of lime mortar within the architecture industry in the last ten years or so, and several new build residential and college buildings have been built using lime based mortars, specified by RHP architects.

But why? Lime mortar has an aesthetic characteristic all of its own – it looks good! Lime is also fundamentally a greener material due to the lower burning temperature needed in the kiln: it can be produced using temperatures of 900 to 1200°C compared with 1450°C for OPC . When trying to achieve the highest Code for Sustainable Homes and BREAAM ratings, making the move to lime will add credits. The inherent flexibility of lime mortars and their 'self-healing' qualities allow large expanses of brickwork to be built without the need for movement joints. To comply with PD 6697:2010 by BSI, movement joints should be around 30 per cent more that the numerical value of the distance between joints in metres. This means a typical 10mm movement joint to coincide with a perpend joint would be at every 6m for clay masonry built with a cement based mortar. Using

a lime based mortar, facades can be constructed without the need for sealant-pointed movement joints breaking up an elevation. Lime mortar re-absorbs CO_2 as it cures and sets. Its ability to provide a breathable construction ensures that the bricks are less susceptible to frost damage. Brickwork in lime mortar can also be easily taken down, bricks cleaned and re-used, which can be particularly beneficial for new build when site quality control has lapsed and areas need to be re-built, avoiding the unsightly joint lines which would be seen in cement mortar masonry. Although an NHL based mortar may be perceived as the more expensive product when compared to a cement mortar, the benefits outlined above can be hugely advantageous to a project.

RH Partnership has used lime mortar for brickwork for precisely these benefits on several schemes. These include:

- Wychfield House: student accommodation for Trinity Hall Cambridge on Storeys Way Cambridge. Completed in 2008.
- Swirles Court, North West Cambridge Development: new student housing for University of Cambridge. Currently in construction phase.
- The Buttery, Newnham College, Cambridge: Student dining hall completed in 2007. Completed front elevation.
- Crausaz Wordsworth building: new seminar space for Robinson College, Cambridge, completed in 2015.

These examples illustrate how a traditional material can be used successfully in new build projects.

As a Accredited Conservationist, one of my concerns is retention and development of skills that have been around in the workforce for centuries. If traditional materials can be seen as a 'good thing' for new buildings, this will lead to transfer of knowledge to the next generation of site operatives. This can only be good for both new build and historic buildings alike.

There is a huge array of information on lime available online, including britishlimesforum.co.uk, buildinglimesforum.org.uk and understanding-cement.com

Mortar, mortar, everywhere...

Case study: northwest Cambridge

This is a large scale, high quality brickwork project. There are a range of brickwork styles needed with both a light buff and dark grey lime mortar. A tint is applied by the lime supplier to the same mix of mortar to make the darker colour. The project is currently on site and the following images show the range of brickwork in lime mortar.

Detail of brickwork in buff lime mortar with hit-and-miss brickwork to bicycle stores.

Various patterns of brickwork – give interest to the elevation during the varying light conditions over a day.

Dark brickwork with dark mortar.

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Clarity on conservation

Dr Noora Kokkarinnen, Assistant Education Director, looks at the key competencies required to become an Accredited Conservationist.

Since the dawn of time communities have sought shelter from the elements through the built environment. Settlements, by way of need and technological advancements, improved the standard of accommodation and other significant buildings, including places of worship, which shaped society in some form or another.

Though these generations are long gone, their legacy through these historic buildings lives on in the present, and will likely survive us into the future. This is possible through building conservation by a growing team of professionals who specialise in their refurbishment, repurposing, protection or preservation. Conservation work isn't merely a project, it is the result of an assembly of knowledge which results in practically incorporating a piece of history within the present. This is because certain buildings will evoke emotive responses, some will hold cultural importance whereas others will have economic or environmental reasons as to why work must be conducted. It is the conservation specialist's duty to:

- understand the cultural significance, aesthetic qualities and values of these structures;
- investigate materials and technologies relevant to each particular site;
- understand social and financial issues and;
- create a feasible schedule of conservation works before any intervention is employed.

In order to fulfil these requirements, extensive research may be required. This can include inspection of all available sketches, photographs and other accounts of the site's construction and use. It may also involve working collaboratively with experts within other fields, for example Conservators for items such as wall painting, sculpture and artefacts. On more of a day-to-day basis, many other specialist consultants, contractors and practitioners such as Conservation Accredited structural engineers, timber, brick and stone specialists, make up teams of dedicated and knowledgeable professionals who understand and care about our built heritage.

It is rare that one individual or practice will have sufficient expertise to carry out a conservation project without involving another specialist of some sort, or at least by referring to technical guidance from accepted sources. It is this process of constant learning and sharing of knowledge and resource which assists in maintaining and spreading the knowledge and body of professionals who are capable of appropriately serving our built heritage.

Conservation practitioners must have the ability to identify, determine and understand what is important about buildings and their surrounding areas. They must also understand how the building worked, what materials were used to build it, and in turn make assessments as to how the existing structure will interact with any modern alterations.

Although it is a team of specialists who work on such buildings, best practice from other similar projects and up-to-date research is applied, rather than following a strict set of conservation 'rules'. A majority of these guidelines stem from the International Council of Monuments and Sites (ICOMOS) which is the body associated with preservation internationally. Individuals who are Accredited Conservationists, have to demonstrate competence within five key areas (or Units) which are:

- cultural significance: participant demonstrates their understanding of current conservation philosophy and ethics;
- aesthetic qualities and values: participant contextualises the wider visual conservation issues of place and performance in use within a philosophical understanding;
- investigation, materials and technology: demonstrating how relevant information is obtained across a wide range of technical parameters to aid effective decision making whilst acknowledging the substance of the asset;
- social and financial issues: demonstrating enhanced understanding developed in the previous three Units and contextualise that with the recognition of reaching a satisfactory conclusion with all the pertinent parties, and;
- implementation and management of conservation works: reiterating the importance of operating with a philosophical and ethical understanding of conservation issues, and to advise effectively relevant current and future needs.

Although there are professionals who carry out conservation work without a professional Accreditation, they are not able to apply for funding to lead projects from certain national bodies. In contrast, those who have achieved CIAT's Accredited Conservationist status are recognised by Historic England, Historic Scotland, Northern Ireland Environment Agency and The Heritage Lottery Fund and others to act as lead consultants on grant-funded projects.

For more information on becoming a CIAT Accredited Conservationist, please contact Amina Khanum, Specialist Registers' Coordinator. Tel. +44 (0)20 7278 2206. Email amina@ciat.org.uk

Useful resources:

www.understandingconservation.org/
www.icomos-uk.org/icomos-uk-home/
www.icomos.org/en/

Make the past your future

Do you work within conservation? Then join the CIAT Conservation Register.

The CIAT Conservation Register identifies Chartered Architectural Technologists competent in the conservation of historical buildings and their surroundings. The competencies that all Members must demonstrate in order to join the Register link directly to the International Council on Monuments and Sites (ICOMOS) guidelines.

CIAT Accredited Conservationists are recognised by organisations such as Historic England, Historic Scotland, Northern Ireland Environment Agency and The Heritage Lottery Fund to act as lead consultants on grant aided/funded projects. History is always being made – so why not make it part of your career?

To join the Conservation Register and for further information, please visit
www.ciat.org.uk/en/Join_CIAT/qualifying/specialist-registers/conservation_register/index.cfm

Or contact Amina Khanum, Specialist Registers' Coordinator at Central Office
on +44 (0)207 277 2206 Email amina@ciat.org.uk

Merton Hall, Cambridge, restored by Toni Page MCIAT

Fotolia/Sergey Nivens

Equal opportunity knocks

Coventry University's Women in Construction Symposium raised the profile of Architectural Technology as a professional discipline and provided a career boost for those who took part, reports **Carl Mills MCIAT,** Chartered Architectural Technologist, Course Director of Architectural Technology at Coventry University and West Midlands Regional Chairman.

One of the definite highlights of my 2016 calendar was the CIAT-supported Women in Construction Symposium in February. Evolving from the highly successful Architectural Technology Symposia run previously in the last two years, this year's event aimed to expand in several key areas, while maintaining the professional industry engagement that makes these events unique and highly beneficial to the student experience.

Our primary aim was to give our female students the opportunity to engage with as many related professional bodies as possible, allowing them to have an overview and appreciation of not only the differences within the professions, but also the similarities. In order to enhance this further we understood that the experiences shared by the speakers needed to relate not only at an industrial level, but also on a personal and career advisory level which could substantially enhance the students' learning and development. Our speakers came from all over the country.

A particular highlight for me was the participation of three of our leading young Architectural Technology professionals – Atea Habibovic of IDP Group who, post-graduation from her Architectural Technology degree has progressed within the project management side of our profession. Atea currently works for David Blake MCIAT at IDP Group which has provided support to our programme continually during my time at Coventry University.

Our other two representatives were Natasha Vermeulen ACIAT from WCECE Group and Kirsty Murray MCIAT from Amec Foster Wheeler, both part of the aspirATion Group and Chairs of their local Regions (Yorkshire and Scotland East respectively). The aspirATion Group is fast becoming a shining light within our Institute and something which I will always personally promote as a noble and progressive aspect of CIAT.

The event was wonderfully received to a sell-out audience including some great support from fellow Accredited universities. The networking opportunities on hand were also exceptional with several students receiving invitations for interviews and subsequently being offered graduate positions with leading UK firms.

Next year's symposium is scheduled for Wednesday 8 March 2017 and members will be given more information nearer the time.

‘Shining a light on women in the industry’

AT magazine spoke to event speaker **Kirsty Murray MCIAT,** Chartered Architectural Technologist, about women in construction.

What positive outcomes did you gain from this event?

Shining a light on women in the industry and in particular their accomplishments is something that is needed more, as women are notoriously bad at self-promoting their achievements. Women in construction and engineering appears to me a big topic at the moment due to the fact that we desperately need to increase the numbers of women into STEM (science, technology, engineering and maths) career, not just into the construction industry. That is why the symposium was a great way to show that being a woman in any STEM industry you are just a qualified and capable as your male counterparts. Your sex should not hold you back and the speakers were very much proof of that.

There was a mix of male and female audience members. We all shared similar challenges and successes in our careers. This showed that none of us (male or female) are alone and by having mentors/ support groups in your workplace or institute, great benefits can be gained by an individual.

Is there a need to encourage more women in construction?

I personally feel it is important to promote the idea that being a female in any male dominated industry can be a very positive thing and the stigmas of being ‘typecasted’ within the office or held back while your male counterparts get more opportunities are a thing of the past. This is the 21st century and women are being heard and respected for what they have to say. This was very much reinforced at the conference with the majority of the audience being male students.

You spoke about your career in the energy industry. Tell us more about that.

I never followed the traditional path of working within Architectural Technology. From completing my BSc(Hons) degree at Robert Gordon University I began working for an engineering and project management company in London working in the oil and gas industry in particular.

From there I worked hard and pushed myself to gain relevant experience to successfully attain Chartered Membership and into a position of leading my own architectural team tackling multi-billion designs for offshore oil and gas installation.

You mentioned your involvement in the aspirATion group. How does this help students and recent graduates?

The aspirATion group is key in assisting and supporting the students and young professionals of our discipline. Having the Regional aspirATion Groups we are able to create a close network of likeminded individuals with a wide range of experiences.

These groups are the ideal place to ask those ‘silly’ questions and make suggestions on what might benefit the group as a whole such as CPD events, workshops, site visits and may more. With the success of the aspirATion group we hope to promote and show the many career opportunities becoming an Architectural Technology professional can bring.

Above left: speakers (l-r) Charlotte Homer, Chloe Agg, Joanne Haskins, Atea Habibovic, Katie Brooks, Kirsty Murray MCIAT, Natasha Vermeulen ACIAT, Carl Mills MCIAT. Above right: Natasha Vermeulen ACIAT makes her presentation.

BritBIM goe

The previous issue featured an account of the BIM level 2 story so far including a description of the 'pillars of BIM'. This article by **Keith Snook HonMCIAT** of the Building Research Establishment reads between the lines of that feature and speculates about what is to come.

Much is made of the UK government's '2011 BIM Mandate' and it is true the statement by Chief Construction Adviser of the time Paul Morrell was effectively the firing of the starting pistol setting off the industry's Usain Bolts, Kelly Holmeses and Bradley Wigginses of their respective areas of expertise on the race to where we are now. That was just before the 2012 Olympics and this is being written just before the 2016 Olympics in case the references are not quite obvious enough for you.

Those supreme athletes are all household names but heroes of team UK in the BIM games are for the most part unsung but might be argued to have been equally successful. Let's not over-egg the analogy however and the main reason for using it is that as a part of the process the UK has taken a distinct lead in the international BIM Games.

In another sporting analogy; the rise in UK success in cycling, first on the track and then the road, has been put down to the holistic, scientific and numbers based approach to selecting and preparing our cyclists (and their equipment) in a sport that had previously been one primarily of passion and individual heroism. I like to think that so it has been with BIM. In the 'pillars' of the previous article the absolute core are the existing Standard BS1192 2007- *Collaborative production of architectural, engineering and construction information. Code of practice* and the two 'new' PASs: PAS 1192-2- *Specification for information management for the capital/delivery phase of construction projects using building information modelling* and PAS1192-3- *Specification for information management for the operational phase of assets using building information modelling.*

With most of the rest of the world looking on in disbelief, these Standards (funded in part by direct UK government support and by huge industry investment mostly in the time of people 'spared' at considerable costs from their day jobs) have been put together and achieved industry consensus in an amazingly short space of time; the 'scientific and numbers based approach'. With some poo pooing from countries which thought they were pretty good too (but not as much as one might think) the UK Standards gained traction internationally and before long became the basis for work on international versions in ISO (International Standards Organisation).

The other side of the analogy, the 'passion and individual heroism' equates to the tendency to leave things to the free economy which by implication means in construction the businesses with the biggest balance sheets and vested interests as opposed to intellectual input and in IT to the vendors of proprietary software (they like to call it 'solutions'). This had been the way of BIM until the government intervention in the UK and mostly remains the way elsewhere.

International BIM Standards

At the time of writing I have on my desk the drafts of these, issued today for comment and approval (by BSI in the case of the UK) and I have to say they look promising. At the time you read this the comment period will have passed and they should be on their way for final tweaking and issue. At least, I hope it is just 'tweaking'.

Without wishing to pre judge the outcome of the CIAT contribution to the BSI comment to ISO there are some detailed comments that CIAT will be making the most serious of which, on first reading, actually apply to terminology related to professional titles, when the reference should be to generic roles, in an appendix taken directly from one of the PASs.
By title these ISO documents are: Information management using building information modelling. Part 1: *Concepts and Principles and Information management using building information modelling.* Part 2: *Delivery phase of*

Fotolia/Fredex

the assets. In terms of scope they bring together the principles of the existing BS and PAS 1 and 2 documents and instantly by combing our existing BS and the new PASs create a better flow and structure to the documents. After the publication of the PASs the 'old' BS 1192 was a bit of a problem in describing the 'pillars' in that technically was not (at the beginning) one of them as it was not free (it later became so, primarily because of the anomaly) notwithstanding that the PASs needed reference to it and on the part of their readers some knowledge of it.

Work on adopting the other PASs in the 'pillars' to the ISO fold is not programmed yet but it is expected that a similar approach will be taken and was certainly discussed in the early meetings where the scope of each document was decided. Indeed PAS 1192 -4 which is primarily about COBie Information exchanges is very well positioned for this and of course while not a part of the 'pillars' ISO 1639 2013 Industry Foundation Classes (IFC) for data sharing is already published, accepted and used. The part 5 on security of data to my mind offers more difficulty and though covering a very important issue in my view has its problems but since I know no more about is ISO future I'll say no more about is BS present for now.

The reference to UK Government Soft Landings inclusion in the previous article is in fact out of date as a BS has been published that is the actual reference now (BS 8536-1:2015 *Briefing for design and construction: Code of practice*) although if you included the Soft Landing method in your previous reading you have not wasted any time as the Standard refers quite heavily to that. Again there are no plans to internationalise this at present.

The BIM protocol is a very UK-orientated document

That leaves the 'pillars' to do with the CIC BIM protocol and Classification. There is already an ISO on classification: *ISO 12006-2 Building construction - Organization of information about construction works - Part 2: Framework for classification of information.* Uniclass 2015 is the world's first compliant system with that high level Standard. So ahead again but that doesn't mean Uniclass will take over the world. Broadly this ISO works by setting parameters that the national (or other) systems must cover so ensuring a degree of not too difficult interrelation at high level and an open market for the development of software to translate between competing systems such as Uniclass and Omniclass (yet to become compliant with the ISO). The BIM protocol is a very UK-orientated document and likely to be brought into better alignment for UK use with a bit of tweaking, although the JCT is uncomfortable about its use and is busy preparing its contracts to eliminate the need of it or anything like it.

What happens next?

We always knew that, envy of the rest of the world that we were, there were still issues with the UK documentation. I have already covered the difficult position of the existing and absolutely essential BS1192 2007 but other issues existed such as coordination across and through all of the titles of the 'pillars' and the numerous documents that they also refer to, or apparent alignment (in some of the figures particularly) with only a limited

range of procurement routes. However for CIAT as well as from a purely logical point of view they do not deal well sometimes with sets of things, a problem also very evident in the BIM Toolkit brought us by NBS. Ignoring simple set theory is the plague of lists and if not the reason classification was invented certainly one of the things the ordered thinking of the 'classificationist' can help with.

The normal simplistic example is arranging a shopping list. Ignoring those without a list, we'd accept that some have list that are more effective than others. The most popular is to scribble down things as they come into one's head and by association sometimes things become grouped but there is no premeditated grouping. Better than nothing but isn't it better to group by either the type of commodity (a set) or layout of the favoured shop (a different set that may end up rather similar)?

I'll not flog that example to death but the most common problem of this kind in construction documentation generally is the confusion between functions, roles and titles with the particular specific difficulty of the term architect that Architectural Technology professionals have. It is also a problem of jargon, custom and practice in construction. With the publication of the ISO documents we get another opportunity to have this sorted out and with the additional weight to our arguments that it also relates to translatability to other languages and ways of working. ISOs are published in English and French but are of course translated (following a set of rules on preserving meaning and intent etc) into the languages of every subscribing or adopting country around the world.

At the moment the only definite programme I have is the closing of national consultation on the ISOs by late September but with a fair wind I imagine we might expect publication in the months following that. The UK like all other nations then gets to decide whether or not to adopt the ISOs and if so to prepare a national foreword, any essential national appendices and withdraw the obsolete BSs. As for the alignment of other national documents under the ISO, that programme is likely to be determined on the release of any further ISOs so that it is not done in a piecemeal fashion but in reality should follow quite speedily.

Fotolia/Niroworld

A benefit of spearheading this work is that procedures and protocols set up to deal with the existing 'pillars' will be unlikely to need very much change to fall in line with the new ISO world which gives UK plc an international advantage. A disadvantage that might be argued is that we will have given away our intellectual property, but surely far better that than either trying to eventually align with something else or to be forever out of step with the rest of the world.

> My dream is the dawning of the day when we stop talking about BIM

The 'rumour category'

Don't say that you heard it from me but it seems likely that one of the aspects of the UK BIM initiative that journalists and commentators alike love the most might be lost at international level, and so by implication filtered down to national level in time. The concept of the BIM levels. Looking at this involves going back and analysing the reason for the big red line between level 2 and 3. There is a lot of information on the original Bew Richards diagram and some of it implies characteristics of the IT involvement and the common assumption has been that this is the main defining factor. Level 3 is much whizzier than level 2 and the software can't do it yet. There is a lot questionable about that statement.

Starting at the end – never say 'the software can't do it' as if that means diddly squat. If there is a demand, a market and reasonable brief the software will do it next week. 'It' however requires human perception and agreement and therein lies the problem and likely several years delay (or around 50 years for the collaborative aspects now promoted under 'BIM' as if it was new).

No, the red line between levels 2 and 3 is about the ways we in the UK relate to each other legally and customarily and for once the legal bit is not the biggest problem it is the custom. Whilst traditionally not as nimble as the software folk, theoretically the legal drafters can come up with a secure way of covering any brief the industry choses to give it entitled 'This is the way we want to work' though you must allow a few provisos about not breaking statute laws etc – we often have a problem with consumer legislation in appointment contracts for example.

My prediction is that distinction between level 2 and 3 will survive just long enough for we in the UK to get to grips with the first tranche of implementation, training people and certifying competencies but then we too will drop the notion.

My dream is the dawning of the day that we stop talking about BIM and it is just a part of what we do to create the most wonderful built environment which is about inspired design, faultless execution and indisputable value.

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CIAT in the UAE

Bluewaters island development, Dubai, by CIAT-registered practice BSBG

The United Arab Emirates is an area of exceptional growth and opportunity for Architectural Technology professionals. **Tara Page**, International Director, and **James Banks**, Membership Director, report on the Institute's visit to the United Arab Emirates earlier this year.

Industry analyst BMI Research recently forecast an annual economic growth rate of 6% in the United Arab Emirates (UAE) for the next three years. As a result, the built environment sector is growing and the construction industry is booming in this part of the world as other areas previously seen as growth hotspots (eg the BRIC countries) lag behind.

Small wonder then, that those in the forefront of Architectural Technology should be choosing this relatively small country on the 'toe' of Saudi Arabia's 'boot' as the place to live and work and further their careers. To help develop the discipline's growth area, representatives from CIAT visited the UAE in May. International development is a key part of the Strategic Plan for 2013-2018 which outlines the Institute's vision to establish its 'international reputation for excellence in education and standards of practice'. As part of its Strategy the Institute is committed to developing the global reach of Architectural Technology, as an academic discipline internationally, particularly in the Middle East, India and Australasia.

The representative group consisted of Professor Sam Allwinkle PPBIAT MCIAT and us. A follow-up on a similar trip last year, the visit strengthened the growing relationship between the Institute, practices, universities and the Institute's Middle East and Africa Centre. It looked at developing new relationships too – offering an opportunity to meet with fellow professional institutes to discuss greater collaboration, including the Chartered Institute of Building (CIOB) and the Royal Institution of Chartered Surveyors (RICS).

Exciting new developments are occurring between CIAT and architectural practices. These include developing an initiative to formalise relationships with practices that are able to demonstrate excellence in Architectural Technology.

This Practice Engagement Initiative is in its early stages, but the opportunity was taken to present the idea to some practices in the UAE to develop our working draft proposal to gauge feedback and potential involvement in a pilot. Watch this space – full details will be released in *Architectural Technology* when the project is finalised.

Abu Dhabi

The UAE's capital, Abu Dhabi contains dramatic skyscrapers and numerous new-build developments wedged between the Persian Gulf and the desert. It's impossible not to be impressed by its scale and its innovative use of Architectural Technology – indeed Benoy's 'Ferrari World' won the Institute's Award for Excellence in Architectural Technology. upon completion.

Gensler
The Membership Director gave a briefing at Gensler Abu Dhabi; one of the foremost architectural firms in the region. Speaking with senior management, it was clear that they are keen for the relevant staff to attain professional membership qualifications within their specific discipline – a clear growth opportunity for membership.

Professional Interview
A Professional Interview was undertaken in Abu Dhabi. Barrie Purtell MCIAT of construction consultancy Currie and Brown re-attained his Chartered status. We found out from Barrie that he is in contact with other Architectural Technology professionals in the UAE and is encouraging them to apply for membership.

Abu Dhabi University
Abu Dhabi University is the largest university in the UAE, located in a striking neo-classical building in lush landscaped grounds. Tara Page, International Director met with representatives to discuss the possibility of developing Architectural Technology programmes in addition to its five year undergraduate Architecture programme. Staff were open to discussion, particularly about Accreditation of its new MSc Sustainable Architecture.

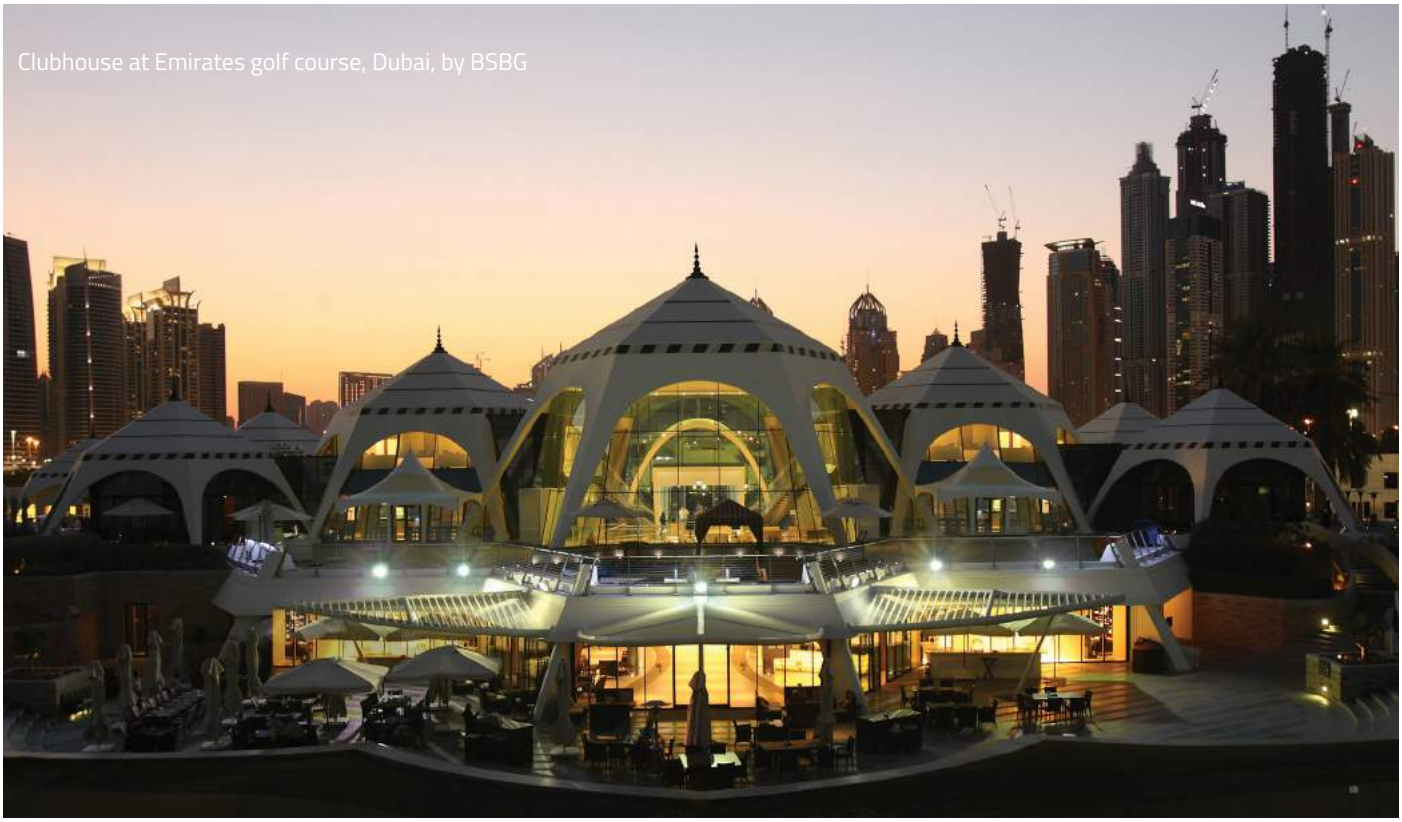
Dubai
Next the group visited Dubai, the UAE's most populous and best known city, with its landmark buildings such as the world's tallest tower, the Burj Khalifa. With a growing economy and vibrant business culture it is a natural choice for Architectural Technology professionals to practise and thrive in.

Professional Interview Assessor Training
Chris Brown MCIAT from Brewer Smith Brewer Gulf (BSBG) and Garry Leacy MCIAT from Atkins (Property), two prominent architectural practices operating in the region, were trained as Assessors for Professional Interviews and are now able to undertake Interviews in the UAE on behalf of the Institute. This is an important development as it will be a considerable boost to the Institute and its members' activity in the Centre. They were also able to carry out in the field training by participation in a Professional Interview, where Simon Kirk from Atkins (Rail) attained his Chartered Architectural Technologist qualification.

Awareness and Recognition
Awareness and recognition of the Architectural Technology discipline abroad is a developing area and part of the reason for the trip was to address this. We are taking up the challenge and promoting our members' abilities on an international platform. These visits give us the opportunity to educate policymakers and employers to assure them of our Chartered Members competences and qualification.

We were pleased to meet with the Associate Director of the Property Department in Atkins, which actively recruits Architectural Technology professionals and we will be working collaboratively spreading this culture across the company. The profile of members working for Atkins continues to grow – they have also agreed to write articles for *AT* or for *aspirATion* magazine to promote membership. Such articles are always appreciated as they give an insight into operating globally , as well as promoting the different projects being undertaken by our members.

BSBG
Architects Brewer Smith Brewer Gulf's (BSBG) Dubai office had its fortieth anniversary this year and we were delighted to be a part of the celebrations. Meeting with partners, we discussed how CIAT and BSBG could formalise its growing relationship. The Practice Engagement Initiative in particular made a positive impact. The Practice Engagement Initiative is currently in development but the ultimate goal is to increase membership levels and co-operation between industry and the Institute.


Clubhouse at Emirates golf course, Dubai, by BSBG

CIAT Middle East and Africa Centre
The celebratory atmosphere continued with a Centre drinks reception. Joe Healey MCIAT Centre Councillor and Chris Curtis MCIAT, Centre Chair attended where Sam gave a welcome speech and Chris spoke to encourage greater engagement and participation within the Centre and regarding its future plans. The possibility of forming a UAE Group within the overarching Centre was also suggested to enable still closer collaboration.

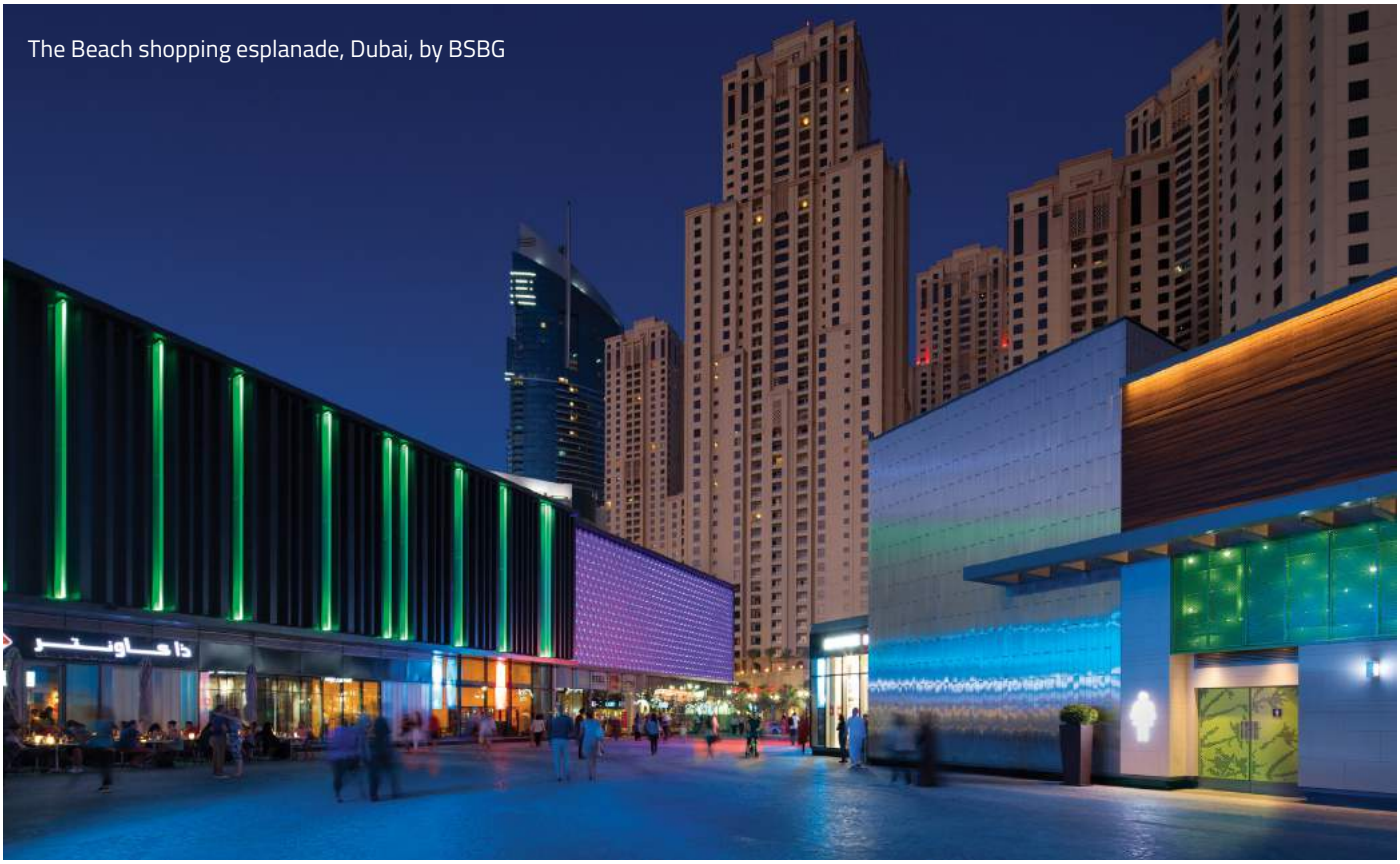
Other institutes
In a thriving economic area it is not surprising that other professional bodies are in evidence and it was great to meet with their representatives. The visit allowed us to meet with Eileen Hill, Middle East Manager of CIOB. CIOB is keen to collaborate with CIAT in this region and offered our members access to their CPD programme. This demonstrates the success of the formal Partnership we have had with CIOB for nearly 20 years. We hope to extend our relationship to other professional bodies over the coming months. We also met Rob Jackson, RICS Director of Middle East and North Africa. Rob was very forthcoming about RICS' activity in the region and support of CIAT in sharing his experience of the political and regulatory system and methods of operation and practice. Adding to CIOB's offer, he indicated that RICS would also be pleased to offer CPD to our members in the region, particularly with training courses.

Canadian University of Dubai
Steve Denyer from the Canadian University of Dubai met with us again, following an introductory meeting last year, to discuss the development of undergraduate and postgraduate qualifications in Architectural Technology, and the possibility of partnering with a university that offers an established Accredited degree. We were also pleased to receive Steve Denyer's application for Chartered Membership, which he has now achieved, thus further cementing our partnership in this area.

The Future
The visit was positive with clear achievements and actions to undertake. It was fantastic to see that members are actively engaged in promoting the discipline and Institute and we are pledged to promote and support them. Repeat visits to practices and universities are building strong links as well as helping with the awareness and visibility of CIAT in this important developing region.

We were only there a short time so we rely on members who live in the Centre to do their part also – our members' support and contribution to our international growth is critical to our success!

Reception for CIAT representatives by the Middle East and Africa Centre.



The Beach shopping esplanade, Dubai, by BSBG

Dedicated to Architectural Technology in the Middle East

Chris Brown MCIAT, Chartered Architectural Technologist, recently qualified as a Chartered Member and works for UAE-based practice BSBG. *AT* magazine reports on his role.

Now in its 40th year in the UAE, BSBG is a multi-disciplinary architecture, interior design and engineering practice. With plans to extend its capabilities and services into both the Asian and European markets, the coming years are particularly exciting for BSBG.

BSBG is committed to Architectural Technology as a practice and a profession, integral to ensuring technical excellence in every aspect of the project cycle. Focused on the adoption, integration and application of technology, BSBG has built a six strong team including five Chartered Architectural Technologists.

Chartered Architectural Technologist
In line with BSBG's ongoing commitment, Chris successfully attained his professional qualification as a Chartered Architectural Technologist, MCIAT in 2015 and his current employment position at BSBG is Associate. Progressing through the company from Lead Architectural Technologist to Technical Manager and Associate, Chris now manages the BSBG technical team, driving productivity whilst developing the technical understanding of individuals within the design and construction teams. As a Professional Interview Assessor for the Middle East and Africa Centre he assists those with aspirations of obtaining Chartered membership, Chris helped introduce the Institute to BSBG and continues to promote and raise awareness across the Middle East and Africa.

Design Role
As Project Director, Chris is currently working on E15 Residential (a residential tower in the heart of Al Jadaf, Dubai), BIGBOX Retail (a retail complex situated in Dubai II district, including an IKEA, Hypermarket, Ace Hardware, Cinema and a big name retail giant), IKEA Bahrain (now on site), IKEA Saudi (scheduled to move on site in January 2017). Chris has worked on some of BSBG's most prestigious projects, such as Bluewaters Island and The Beach.

Chris oversees the work of technical staff whilst carrying out internal design and technical reviews complying with Quality Assurance procedures. Central to Chris's role at BSBG is the co-ordination of the Concept, Schematic and Detailed Design stages, the review and preparation of details and material specifications ensuring technical excellence throughout the practice.

BSBG Technical Team
A truly diverse team in both experience and skillsets, the six strong BSBG technical team are capable of delivering any project to the highest technical standard. BSBG began working in Revit five years ago, focusing initially upon building knowledge and experience within BIM, before adopting the process on all projects. These projects informed the process that has seen BSBG emerge as a regional leader in BIM.

They are currently recruiting, so if you think you have what it takes to be a part of the BSBG technical team, they'd love to hear from you: careers@bsbgulf.com

ICD Brookfield Place tower, Dubai, by BSBG

Cutting edge India

Fotolia/Sapsiwa

This page: Modern Mumbai (Bombay). India's rapidly developing economy has seen a boom in new buildings particularly high rise residential blocks.

Alex Naraian MCIAT, Chartered Architectural Technologist, President Elect, South East Region Councillor and Associate Director of ADAM Architecture, visited India to promote Architectural Technology in a country which is rapidly developing.

I was excited to be invited to join the Institute's group which visited India in March, representing practice and industry. My thanks, as always, go to ADAM Architecture for their ongoing support of our Institute in allowing me the time to take part. The group was comprised of Tara Page, International Director, Amina Khanum, Assistant Membership Director and Professor Norman Wienand MCIAT, Head of Department of the Built and Natural Environment, Sheffield Hallam University.

I hear you asking, 'why on earth would you want to be a part of it?' Well, the answer is simple, dedication, passion and commitment. Dedication and passion to want to see our profession and the membership grow internationally and a commitment to the fulfilment of our Institute's Strategic Plan.

This trip was primarily an exploratory visit; the findings of which are being used to assist in developing a strategy to further promote the discipline, the Institute and its members in India.

The purpose of the visit was to ascertain:

- The position of the discipline of Architectural Technology in India.
- Whether it exists as a distinct profession and if it is understood.
- If there is an appetite, and support, by architects for the discipline to be established in India.
- The governing bodies for architects and a route to establishing a dialogue with those bodies.

Why India?

India's economy is growing rapidly and it is really 'coming of age'. To not be a part of this and to allow this to pass us by, and for India not to have Architectural Technology would be a tragedy and we should be looking to expand in this country. The potential for growth of the discipline is colossal.

The visit kept us extremely busy and we met with a number of organisations across three cities during the trip. Due to the number of meetings and their locations, the group was divided into two for the majority of the time. This played in our favour as we were able to cover much more ground by dividing the time we had available and in comparing notes, we identified that the findings of both groups were very similar.

The practices and organisations visited during the delegation visit were:

Bangalore
Atkins Global Design Centre (multinational company)

Venkataramanan (India-based architectural practice)

BMS College of Engineering

Inform (India-based architectural practice)

Jurong International (multinational company)

Gensler (multinational company)

RSP Architects (India-based architectural practice)

New Delhi
Jacobs (multinational company)

Sheffield Hallam University India

VYOM (India-based architectural practice)

International Network for Traditional Building, Architecture and Urbanism (INTBAU)

Atkins (multinational company)

Sushant School of Art and Architecture, Ansal University

Construction Industry Development Council (CIDC)

Mumbai/Bombay
Perkins Eastman (multinational company)

Hafeez Contractor (India-based architectural practice)

International Network for Traditional Building, Architecture and Urbanism (INTBAU)

Jacobs (multinational company)

Sanjay Puri Architects (India-based architectural practice)

Ansal Academy of Architecture

Education and practice of architecture and Architectural Technology in India

Currently, Architectural Technology is not established in India and does not exist as a separate discipline. Unlike the UK, where the discipline has evolved over the last 51 years, India's architectural degree programmes encompass some aspects of Architectural Technology, but it is not recognised as a different profession, so its ethos is not understood.

Many of the practitioners with whom we met have links with and/or teach at the academic institutions. Students enrolling on architecture courses in India undertake a five year programme, with the final year being an internship of up to one year. Further training is often required, particularly regarding the technology aspects of architecture, and usually at the expense of the employer, and this training may take a period of two or more years.

Of course the two disciplines of architecture and Architectural Technology, while related and complementary, are distinctly different and too broad to be covered by a single degree or within one discipline. This was evident to the delegation and the architectural profession in India recognises that trying to encompass the two professions under one banner appears not to be 'fit for purpose'.

We explained to each practice and university what Architectural Technology is, the Institute's function, how the discipline complements and sits equally alongside architecture and where it fits into the process of design — bringing together design and delivery without compromising architectural integrity.

Above: Alex Naraian (right) meets Deependra Prashad, secretary for INTBAU India.

Fotolia/Alexander

India also has many heritage buildings, from both the Mughal and British empires, which require skilled architectural maintenance. Above: Victoria railway terminus, Mumbai, (1887).

They all acknowledged that there is a need for the discipline in India to be established alongside architecture. They have a vested interest in working with us as they do not see Architectural Technology as a threat, but a necessary enhancement - which of course, it is. This is great news! Visiting India really did make me appreciate the fact that in the UK we have both disciplines in ex-istence, and established educational pathways for Architectural Technology.

Educational standards in India: Council of Architecture

The standards of education within educational institutions are governed by the Council of Architecture (COA) in India which was constituted under the Indian government. The standards set out the requirements of eligibility for admission, course duration, standards of staff, course content, etc. The COA is required to keep the central government informed of the standards being maintained by the institutions and is empowered to make recommendations to the Government of India with regard to recognition and de-recognition of a qualification.

There are currently over 420 institutions offering architectural education in India leading to recognised qualifications. There are more than 40,000 architecture graduates per year from these institutions; many of whom do not go into roles where they are undertaking the typical activities of a traditional architect but go into other related areas, such as Architectural Technology which sits under the banner of architecture, or may even leave the profession. The practice of architecture is regulated by the Council of Architecture to ensure the implementation of the Architects Act 1972. The Act provides for registration of architects, standards of education, recognised qualifications and standards of practice to be complied with by the practising architects.

As well as regulating the education and practice of the architecture profession throughout India, the Council of Architecture is responsible for maintaining the register of architects and currently any person seeking to undertake the profession of architecture must be registered with the Council of Architecture. The registration also entitles a person to use the title of architect.

Indian Institute of Architects

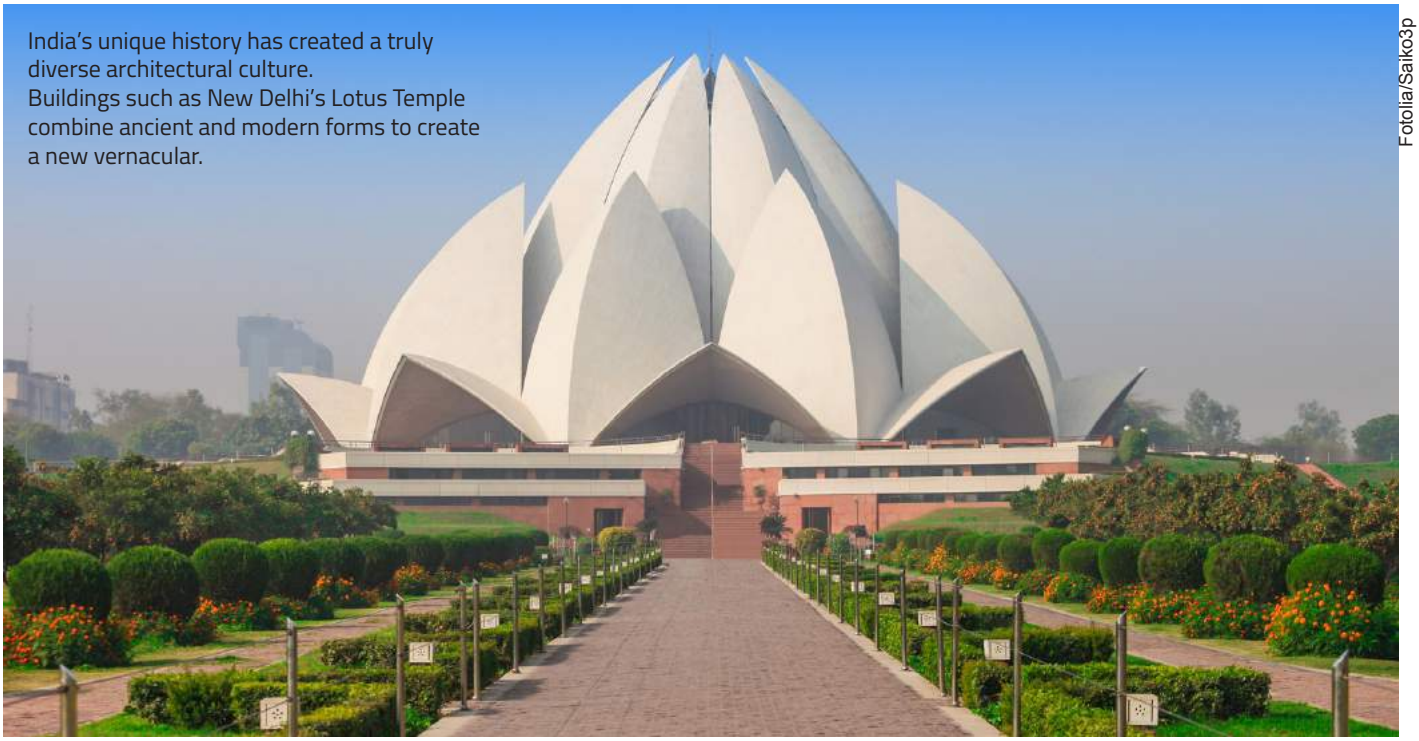
The Indian Institute of Architects (IIA) is the national body of architects, with over 15,000 members. The Institute has a major role to play in promoting the profession of architecture by organising pro-moting aesthetic, scientific and practical efficiency of the profession both in practice and in education. IIA is represented on various national and international committees connected with architecture in the building industry and is also actively associated with the RIBA, the International Union of Architects (UIA) Commonwealth Association of Architects (CAA) and South Asian Association for Regional Co-operation of Architects (SAARCH).

What happens next?

We are seeking support from the Indian practitioners and academics with the aim of approaching the Council of Architecture (CoA) and the Indian Institute of Architects (IIA) to initiate a dialogue with a view to potential collaboration.

Alongside working towards this, it is vitally important to foster, develop and establish the relationships that have been initiated during the delegation visit with practices and educational establishments. Without allies within India, and the development of educational programmes necessary for Architectural Technology to grow in India, the discipline will not be sustainable. The relationships forged during the visit are crucial, as it will be through these relationships and contacts who understand the systems, barriers, challenges and culture, that we will be able to develop the Architectural Technology profession in India.

Further visits will be vital in order to take the discussions forward and to continue to forge relationships. Consistency of qualification, the opportunity for growth and a desire from within India for Architectural Technology, mean that whilst establishing the profession and gaining recognition will be a challenge, we are pushing at a partially open door. Watch this space for future updates.



India's unique history has created a truly diverse architectural culture. Buildings such as New Delhi's Lotus Temple combine ancient and modern forms to create a new vernacular.

Fotolia/Saiko3p

RIBA Plan of Work 2013 Guide

By **Peter Caplehorn HonMCIAT,**
Policy Director, Construction Products Association

Review by **Eddie Weir MCIAT**, Chartered Architectural Technologist, Vice President Practice.

RIBA Publishing
June 2016
ISBN: 9781859465882
Paperback
£35.00

The Construction (Design and Management) Regulations 2015 have been in force in Great Britain for some eighteen months now (from 1 April 2015) and Northern Ireland has followed suit with the Statutory Rule: Construction (Design and Management) Regulations (Northern Ireland) 2016 (SR2016 No 146) (CDM2016) (from 1 August 2016).

So what does this mean for our membership?

HSE's intention is that it will be simplified and proportionate to the work – cutting out much red tape and only providing the most salient and useful information to manage significant hazards. Members in the UK have been endeavouring to adapt their working practices to align with the new legislation with the assistance of a plethora of information provided by HSE and CITB amongst others.

In answer to the new Regulations, CIAT has developed a page on the Members' Only area of its website where a collection of information can be downloaded and links easily found to the most straightforward and reliable guidance. This includes an insert on CDM sent out with *AT* magazine issue 113 in spring 2015. Members will be pleased to see that the comprehensive CITB guides and tools are constantly being updated and the CDM Wizard app will be useful to members wanting to get down to the basics of producing the pre-construction phase plan.

Earlier this year, a new RIBA Plan of Work 2013 Guide was written by Peter Caplehorn HonMCIAT, which Presdient Gary Mees described thus:

'This comprehensive guide demonstrates health and safety's embodiment into the RIBA Plan of Work, encouraging collaborative consideration to mitigate hazards and focus on the real issues by the integrating of essential information into the design process.'

Having had the opportunity to read it through, I cannot agree more.

It gives comfort to those who might want reassurance about Regulations

To qualify, members must demonstrate their competence in the area of health and safety, indeed the QAA Benchmark Statement specifies the area as a must, so it should not be difficult to adapt the new rules which are designed to be more streamlined and proportionate to our projects.This book talks to the design professional and gives practical and helpful advice to overcome any potential difficulties where seemingly hazardous circumstances may arise.It takes a technical approach which all members will relate to and gives comfort to those who might want a bit of reassurance that they are interpreting the Regulations in a constructive and proactive way.

Going through the various work stages outlined in the Plan of Work that we are all familiar with, it highlights areas that should be considered at each stage in order to ensure that Health and Safety is considered and preventative measures taken to avoid problems being encountered at later stages. Clearly this is a cost effective and efficient way of working.

Most members will already be working in this way but this is a great 'friend' to have along the way to double check and receive sound advice. This is a testament to Mr Caplehorn's gift of cutting through to the nub of what needs to be done and in so doing addresses matters of health as well as safety, which we should always be mindful of.

Stable environment

Lawrence Coussell MCIAT, Chartered Architectural Technologist and CIAT-Accredited Conservationist designed an award-winning upgrade for a listed Georgian house and stable block in Norfolk which brings harmony to a disparate collection of buildings.

Using a variety of innovative design ideas, Lawrence Coussell MCIAT elegantly transformed a run-down village house into what is now a five star boutique hotel. In this article he describes how he overcame some of the challenges of the refurbishment.

Caradon in East Rudham, Norfolk, is a Grade II listed village house of Georgian style dating from 1806. Within the grounds of the house there is a stable block with a former veterinary surgery, appointed to the Royal Stud at Sandringham from the 1920s until 1982 when it ceased to be used. In addition there is a two-storey outbuilding on the west boundary with a relatively modern garage link between this outbuilding and the west elevation of the stable block.

There are also single storey outbuildings running south from the house's east wing, all of which were in poor condition.

The house frontage sits approximately 1m back from the road kerb. The east boundary is approximately 8.3m distant from the house's east gable, this is the area of the new access.The front of the main house is red brick Flemish bond with a black glaze pantile roof. The house gables and east elevation of the east wing are rough coursed flint cobbles with red brick dressings. Both the stable block and outbuildings are brickwork with rough coursed cobble flint panels, all painted white, and there is a slate roof to the stable block and veterinary surgery with double roll concrete tiles to the outbuilding and garage link.

Rotting rafters in a prime location

The proposals were put forward following a pre-application meeting with the Conservation Department in October 2012 and the subsequent revisions to the proposal following that meeting.The south/east single story outbuilding was in poor structural condition and had been badly repaired in the past.

This section of the building was of the worst condition and held little value to the buildings as a whole, and settlement to the south gable was occurring. The roof tiles had been replaced with heavy concrete modern tiles and many of the rafters were rotting. This structure sat in the prime location for a new structure to enable a superior layout to work.

Infill garage

The infill garage between the central stable block and the west outbuilding was of poor construction and not at all in keeping with the remainder of the buildings on the site. There were various timbers and beams imposing point loading to the other buildings and the removal of the infill allowed the buildings either side to be repaired and seen as they would have been.

Vet's office and stable block

The existing property was used for domestic purposes and a veterinary practice business. The veterinary office and stable block was to be converted to living accommodation and used as domestic purposes only with the existing house. The outbuildings to the west boundary were to be renovated to domestic use and used for 'granny annexe' purposes.

The site

The site is approximately 26m wide at the road kerb increasing to approximately 32m wide to the south elevation of the outbuilding. The house sits approximately 1m back from the road kerb and in total stretches just over 29m back into the site.

The existing tall entrance gates to the right of the main façade were retained – the beech hedge to the left-hand side of the main façade was re-planted along the east boundary allowing for a new vehicle entrance to the east of the house. The Highways Authority's acceptance of this new access enabled the scheme to go forward as proposed – this new access determined the revised house entry position for the scheme.

The link

The main house is of two storeys with non-used domestic attic space. The east wing is two storeys and both this area and the main house were in need of careful renovation as there was damp in the walls, concrete floors and open drainage internally. The existing veterinary surgery with the stable block structure was very close to the main house, it was the proximity of this building which influenced the type and size of link possible to enable the stable block to be used for domestic purposes.

Opposite: the rear aspect. This page, top: the front aspect. Below: Rear showing side access to road.

The brief

My brief was to provide a family home for modern day living while retaining the character and essence of the listed property. My brief also requested the children's bedrooms be kept together whilst the master bedroom could be separate. This was achieved with the introduction of the two storey new build which is square on both plan and elevation.

Avoiding the 'rat run'

The link to the existing stable block could only occur within a certain area if it was not to have a significant impact upon the existing house and scale of the existing stable block. This posed a problem regarding the working of the house and the stable/veterinary area as the south stable area is some 21m away from the main house body. To avoid having a 'rat run' from one area to another the link includes a picture corridor.

This area is created by the introduction of stone turned Tuscan columns providing a 2.8m wide route from the main body of the house to the south kitchen/utility areas. The new corridor is repeated at first floor allowing the link to be maintained at this level also.

Loose boxes

Due to the nature of the activity and use, there was social history with the veterinary surgery. It was proposed that this area would be sympathetically restored. The surgery would be used as an office accessible from the utility area within the stable block.

All new brickwork is laid in Flemish bond in a lime mortar

There were loose box dividers which were in poor condition, these were removed so allowing them to be cleaned and re-used within the kitchen/utility areas where possible.

There were rotting boards to the bottom of the loose boxes which were removed or made good as well as possible whilst floors were taken up to allow insulation and new flooring to be installed. The stable loose boxes had not been in use for the previous 31 years.

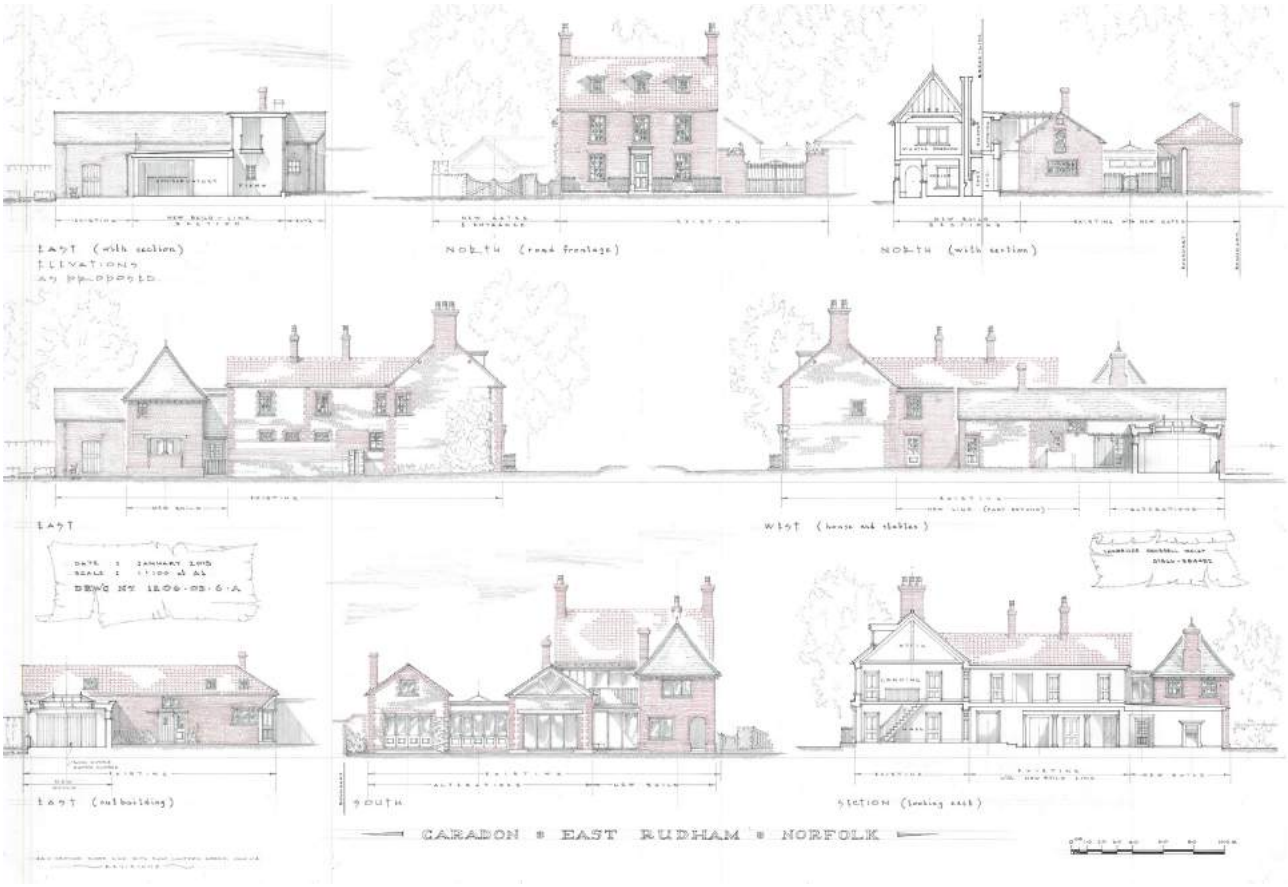
Using the sun

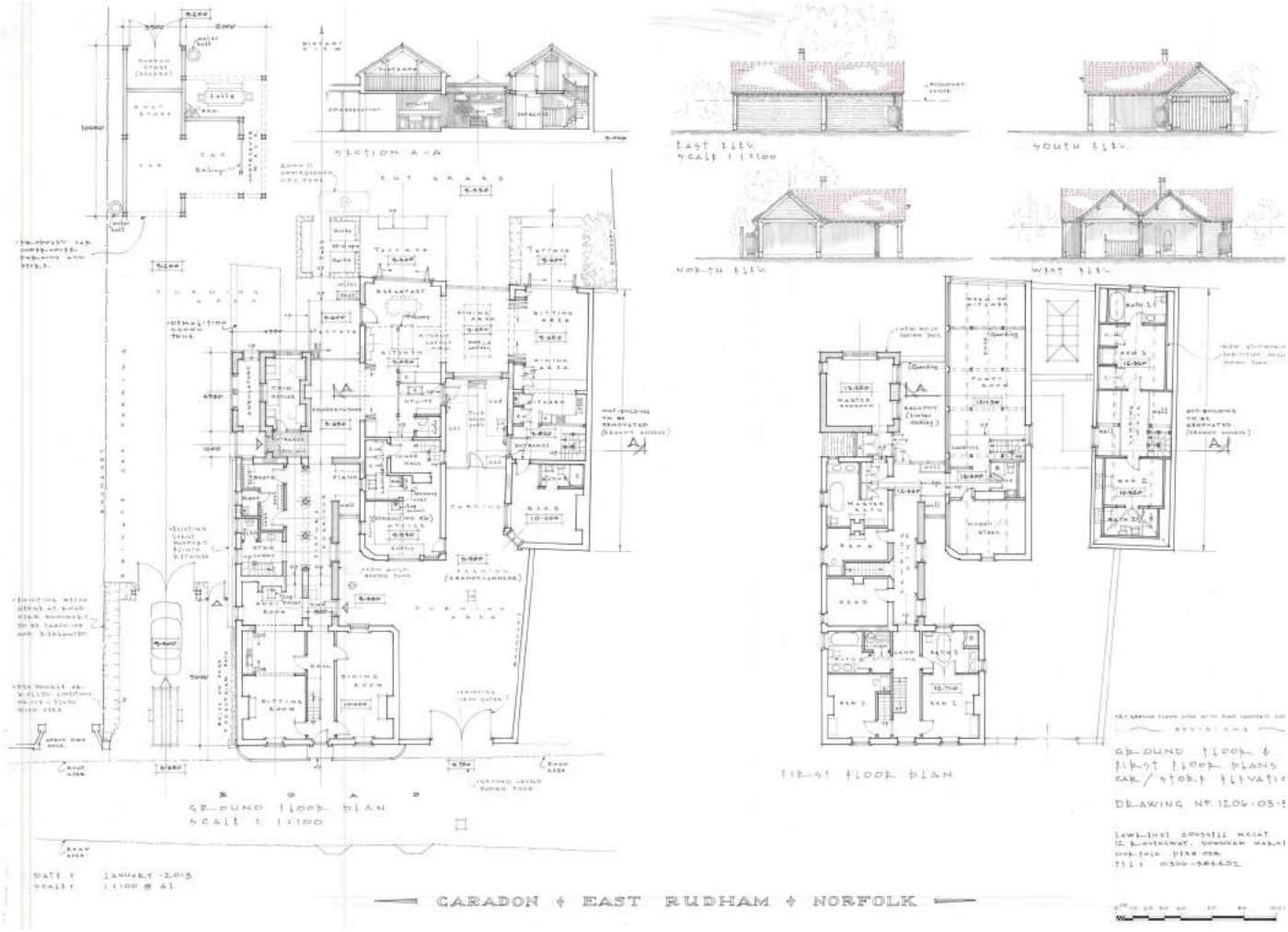
To take advantage of solar gain the link between the new build and the existing stable structure includes fully glazed south (and north) facing walls. The south facing gable wall to the stable structure contains new bi-fold doors with a glazed infill oak truss above. There are also double doors to the south gable for the granny annexe.

The new layout provides both winter living and summer living areas with the picture corridor being the connection between the two. Only minimal intervention was proposed to the existing first floor structures of the main house, the existing south/east wing and the first floor of the stable loose box area.

Focus on herbs

There is a main axis line on the centre-line of the front door which runs through the picture corridor, conservatory and herb garden providing a focus point for a distant object/finial in the garden beyond. This is an undisturbed view through the house. There is again an axis line from the ante-room through to the boots room door. The existing house and south/east wing is red brick and flint as previously mentioned. All new brickwork is in red


EAST (with section)
ELEVATIONS
AS PROPOSED
NORTH (road frontage)
NORTH (with section)
EAST
WEST (house and stables)
EAST (outbuilding)
SOUTH
SECTION (looking east)
CARADON • EAST RUDHAM • NORFOLK


SECTION A-A
EAST ELEV.
SCALE 1:100
SOUTH ELEV.
NORTH ELEV.
WEST ELEV.
GROUND FLOOR PLAN
SCALE : 1:100
FIRST FLOOR PLAN
CARADON • EAST RUDHAM • NORFOLK

facings laid in Flemish bond in a lime mortar with facings matching as well as possible.

From the east elevation the existing ground level drops approximately 300mm which slightly emphasises the height of the existing east gable and east eaves. The existing eaves of the south/east wing and the main house eaves align. The new build in red facings with a slate hipped roof and lead roll hips is in the Arts and Crafts style and deliberately detached from the gable of the existing wing.

Cat slide roof

The link between new and existing is via a long cat-slide roof (this link is visible only from the east elevation) with the entrance door set centrally under. This relief from the existing structure provides shadow and prevents the existing south/east wing being visually extended. The eaves height of the new build has been deliberately kept lower than the east wing eaves whilst the roof finial is humble to the existing house ridge. The new build is square on plan and centred on the south/east wing ridge line. The family entrance to the house is now via the new ambulatory. The south elevation arched opening provides access to the house close to the proposed new open car parking area providing a safe area for young children away from the road. This new entrance position changes the way the house is used, the kitchen and utility areas are now to the south near the entrance but easily accessible.

Preventing a wind tunnel

The removal of the south wall and modern garage link between the stable block and the outbuilding allows the structures to stand independently with individual gables. A new glazed link with painted hardwood entablatures unites the buildings whilst also providing privacy, controlled access to the granny annexe private garden area, and the prevention of a wind tunnel.

The link between the new picture corridor/first floor corridor and stable block structure has glass walls full height with lead coloured zinc cladded spandrels (above the veterinary roof) and flat roof. The height of the flat roof aligns with the ridge of the existing veterinary area but this remains hidden by the new lead roll ridge. This flat roof has been deliberately kept at this height so as not to be visible from the north (the public eye).

External features

A number of terraces have been shown to the south of the south gables. There is a hedge to the right-hand side of the granny annexe area terrace to provide privacy to the main house. Open railings (to mimic the existing road facing railings) with a hand gate have been inserted between the stable block and granny annexe outbuilding. Small terraces, steps and herb gardens to feed the conservatory/kitchen were included. The cobbles, setts and shingle areas of the hard standing through the gates were retained as far as possible, and adjusted only for new build and any necessary steps. The stable setts were reused on site for hard standing on the open car parking/storage areas.

New vehicular entrance gates are set back into the site (approximately 10m from the road kerb) to enable a parked car with a trailer to be off-road in front of the gates. The visibility splay exiting the site is an improvement upon the existing retained west access. Ample turning area has been allowed so that cars can enter the road facing forward. In addition, there is parking for 8-10 cars on the 7.5m wide drive, turning area and open garage store.

Would you like one of your projects to be featured in AT *magazine? If so please contact the editor, Hugh Morrison. Email hugh@ciat.org.uk.*

Vetinary consulting room, as seen through original entrance gates.

Network and celebrate

Southampton 2016:
AGM, President's Ball and Awards

You are invited to attend the Institute's AGM weekend. Don't miss this great opportunity to network and attend the Annual President's Ball where the 2016 Awards will be announced and presented.

Join fellow members and guests at one of the highlights of CIAT's year. The AGM, President's Ball, Awards and associated events take place this year on 11-12 November in Southampton. This is a great opportunity to meet fellow members from across the UK and overseas, as well as external industry guests. The events are as follows:

Charity evening

Friday 11 November

This event is hosted by the South East Region and is an informal networking event to raise funds for the Region's chosen charity, Youth and Families Matter. It will be held at the Grand Harbour Hotel, Southampton.

Annual General Meeting

Saturday 12 November

The AGM will take place at The Spark, Southampton Solent University. This is a brand new state of the art facility which delegates will have the chance to explore. The Institute is working with the university and South East Regional Committee to organise the day. Further details on the schedule will be available nearer the date. Voting at the AGM is for delegates only, but members who have registered in advance are welcome to attend. During the AGM, there will be an organised tour to Tudor House and Garden (adjacent to the hotel). This tour is open to guests and partners.

President's Ball and Awards

Saturday 12 November

The President's Ball will be held in the Mayflower Suite at the Grand Harbour Hotel, Southampton. This event will incorporate the announcement and presentations of CIAT's 2016 Awards.

Along with delegates, the President's Ball is attended by a range of key industry guests, shortlisted entrants and Award recipients. The evening includes a three course dinner followed by live music and dancing.

Further information

For further information on the events, please contact Isabelle Morgan, Administrative Coordinator.
Email isabelle@ciat.org.uk

For information on sponsorship opportunities, please contact Hugh Morrison, Communications Director.
Tel. +44 (0)20 3286 2201.
Email hugh@ciat.org.uk

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CPD Register

CIAT's approved CPD providers are adding a new dimension to your knowledge and learning

Fotolia/Fresh Idea

Members have an obligation to keep themselves informed of current practice and developments appropriate to the type and level of their responsibilities for their own professional benefit, but also for the benefit of the public who utilise buildings created by Architectural Technology professionals.

Individual members are encouraged to find and partake in activities such as reading Architectural Technology related literature, conducting relevant research for clients/projects and so on. In addition to these, the Institute now offers members another platform to find relevant courses to support their professional development through CIAT's newly established CPD Register.

The Register is a list of CPD Providers and their courses which have been submitted to the Institute for assessment and which have been deemed of a high standard, current and relevant to our members. The Register will allow members to search for courses which meet their learning needs and will provide them with an assurance that the course meets CIAT's standards. Additional benefits include:

- Courses will indicate how many CPD learning hours can be met;
- Ability to log CPD hours in CIAT's new CPD Record Portal 'Member login'
- A more personalised, flexible and informal approach to members' learning.

The Register will cover various areas suitable for CPD and will continue to be updated to incorporate new courses and revisions of existing ones.

The first certified providers on the Register include JRA (James Ritchie Architect), offering a one day introductory course on how to undertake a CDM2015 Principal Designer role on small and medium projects, and the Robert Gordon University, offering two virtual campus modules – BIM Strategy and Concepts and BIM Application. Members can find courses on the Register listed here: www.ciat.org.uk/en/careers/CPD/

As the Institute grows internationally, a selection of CPD courses will be offered on a distance-learning basis meaning that members further afield are also able to benefit from the scheme; allowing the member to find courses pertinent to their area of responsibility or development. International CPD will also be accepted onto the Register. CIAT invites you to help us build a global learning resource/knowledge base. This can be done by nominating an individual, organisation or educational establishment which you found useful to join the Register so that other members are able to benefit from the knowledge you have gained.

Courses which meet the Institute's criteria will remain on CIAT's CPD Register for 12 months and will be frequently updated to indicate the next available dates of the course (if applicable). The Register will be easily searchable by CIAT's full membership.

Applications to join are made online: www.ciat.org.uk/en/careers/CPD/cpd-provider-application-form.cfm

Accepted courses will be added to the Register within 28 days of applying.

CIAT is offering 30% off for educational establishments offering CPD courses that do not meet our standard Accreditation or Approval processes, and 25% off for other organisations until 31 October 2016.

'The CPD Register is a quick and effective reference point for our training requirements.'
Leo Forte MCIAT

CPD Register in action

Leo Forte MCIAT, Chartered Architectural Technologist, attended a course offered via the Institute's CPD Register. **Dr Noora Kokkarinen**, Assistant Education Director, spoke to him about the experience.

Why did you choose to undertake the 'Introduction to Principal Designer role' course offered via the Institute's CPD Register/James Ritchie Architect (JRA)?

This CDM training course (JRA) addressed all our office requirements having looked into various courses offered by other organisations

Was it easy making contact with JRA to attend?

Yes, very easy. No problems encountered! There were quick responses to all our enquiries. The CPD Register is a quick and effective reference point for our training requirements and is an invaluable hub to keep abreast of current legislation.

What did you learn from the course regarding the changes in Principal Designer legislation?

A more detailed understanding of the new legislation compared to its replacement and the new duties of the Principal Designer. Emphasis on design risk and performance management in projects. Various scenarios given for consideration in the pre-construction H/S (health and safety) Plan. All the current required information and details were included in this course.

Would you recommend this course to your peers?

Yes, without hesitation! Well organised very professional seminar!

Leo Forte MCIAT is principal partner of McLean and Forte Partnership, Belfast. He has over 40 years experience with particular expertise in education and ecclesiastical design. He was Northern Ireland Regional Chairman for two terms and is member of the Moderators Group. An enthusiastic advocate for Continuing Professional Development within the industry, he received a Gold Award for services to the Institute in 2008.

To find out more visit: www.ciat.org.uk/en/careers/CPD/

CIAT ARE PROUD SUPPORTERS OF DIGITAL CONSTRUCTION WEEK

DIGITAL CONSTRUCTION WEEK
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Digital Construction Week should already be in your diary! Don't miss your chance to hear from pioneers leading the AECO industry and from those outside our industry championing digital innovation and technology.

WHAT'S ON AT DCW 2016

Join over 3,000 industry professionals at the Digital Construction Show on the 26th & 27th at the Business Design Centre in London. Come to our FREE to attend conference & seminar series and features, network with peers, and meet some of the most innovative suppliers in the AECO industry.

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- INNOVATION ZONE
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- LOCAL AUTHORITY VILLAGE
- TECH STAGE

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Recession progression

The threat of redundancy in 2012 inspired **Nicola Davies MCIAT,** Chartered Architectural Technologist, to take a risk on a new job in heritage on the other side of the country, despite being a single mother with two children.

'How do I maintain and secure a future in the industry, particularly during a recession?' This was a question I put to myself in 2012. Working for a wonderful conservation practice, Acanthus Holden (Pembroke), we were told that redundancy *might* be a possibility if work reduced further, and this caused me to panic initially.

I completed a HND in Architecture and Building Conservation in 2000 and had worked very successfully off the back of that. I had been an Associate member of CIAT since 1999, but despite having a desire to be a Chartered Architectural Technologist, I never did find the time or really see the value in it. I had everything I needed, a great range of clients, 60% of whom were ecclesiastical, great contacts and contractors, and good relationships with Cadw (the Welsh heritage body) and the local authorities. In addition I got on well with the national park planning and conservation officers I dealt with, and had gained a solid reputation built from working in a successful practice, and all the support and development they afforded me.

Go sailing or fill in my application for Chartered Membership… yawn…it was defeating me! If the worst was to happen I needed to take that next step, which for me was the degree. I only had the choice of one university near enough to home but sadly, six months before I signed up, the university had scrapped the BSc Conservation Management, which would have been a natural progression for me. I was left with BSc Project and Construction Management instead. This was essentially going to furnish me with the same skill set having already had a robust HND conservation course.

The university was 50 miles from home and travel was a great expense to myself, this also increased the challenges, as my working week reduced to 22 hours per week for the duration of the course.

I completed the BSc with a 2:1, which gave me renewed confidence for my future. I spoke to my boss and explained that I felt I needed a fresh start, which was the right thing to do given the privilege of working alongside them for seven years leading to this point.

The university was 50 miles from home and travel was a great expense.

I looked on the IHBC website and a job was advertised in Sussex, looking for a Conservation Architect, I was a Chartered Architectural Technologist, but I had the 13 years of working on churches and this was one of the key clients listed, it was a long shot, but I called them.

I was told they were specifically looking for an architect, but if I sent a copy of my CV and some PDFs of my portfolio they may know of other appointments, I thanked them, sent the info and didn't expect to hear back…I was wrong and the rest is history. My portfolio and CV tantalised them enough to offer me an interview and here I am three years later, having started on 23 September 2013.

Having worked in the relative comfort of my home county of Pembrokeshire for nearly 20 years, moving to West Sussex to further my career in a new job presented many fresh challenges. Not least a new company and team to work with, but new contractors, clients, Local Authorities, and the difference in dealing with Historic England (HE) compared to Cadw. On moving to Sussex 95% of my existing contacts became null and void, but what I could bring was a balanced level of experience in both architectural services and those more specialist within built heritage conservation.

I was employed to assist with the growing demand for the Building Conservation service line within Smiths Gore (SG). As a contract administrator I manage a range of jobs from inception through to completion, including detailed measured surveys, detailed drawings for statutory submissions and consents, along with writing specifications and reports covering contract administration and monitoring works on site.

My specialism has driven me into an advisory and specialist role delivering the more specialist documentation, such as Heritage Statements and building condition surveys, listed buildings and Scheduled Ancient Monuments.

After encouragement from a colleague I finally submitted my membership application in spring 2016 and shortly afterwards I was interviewed and passed. The interview panel and administration staff were welcoming, putting me at ease, but selecting projects that you're passionate about certainly helps the process in my opinion.

With the particular type of business I am in and the type of work I do, the next step for me is twofold, firstly attaining Accredited Conservationist status within CIAT, whilst also working towards full RICS membership, which I submit this November, so watch this space.

RICS will not replace the MCIAT, but work alongside it, which I feel with give me the full complement to continue with the confidence we all need and the recognition we deserve as professionals.

Double Award for Jersey projects

David Ferguson Photography

CIAT representatives alongside the Chief Executive visited Jersey for a double plaque presentation. Plaques for two CIAT Awards won by CIAT-registered practice Design Plus were presented in August. Soleil du Soir, *(above from left Gary Mees PCIAT with Eddie Caldeira MCIAT and Martine Gough ACIAT)* a bungalow refurbishment in Pontac Common, was the Winner of the 2015 Alan King Award. La Vregie *(above right),* an eco-friendly granite dwelling was Commended in the Award for Excellence in Architectural Technology. Both projects were from CIAT-registered practice Design Plus Ltd. The event was featured in the *Jersey Evening Post.*

Hold very tight please!

In July President Gary Mees presented the plaque for the Award for Excellence in Architectural Technology (Commended) to Robert Rhodes of Janus Architecture for the Caledonia bus depot in Glasgow.

For he's a jolly good Fellow

South East Regional Councillor receives Honorary Fellowship

Alex Naraian MCIAT ICIOB, President Elect, South East Region Councillor and Associate Director at ADAM Architecture received the prestigious award of Honorary Fellow of Southampton Solent University in July.

During his acceptance speech, Alex advised graduates: 'In business, relationships are so important. It takes a long time to build up a good reputation that is based on honesty and integrity, but a very short time to build a bad one. Dream big, invest time in people and be a person of integrity.'

For the last decade, encouraged and supported by ADAM Architecture, Alex has worked closely with Solent in both an employer liaison capacity, and on a collaborative academic basis. It is his belief that industry has a social and academic responsibility coupled with a passion to help those studying that drives him to support the university.

'I see the giving of time to the university as an investment in the ongoing success of Architectural Technology,' Alex continued. 'It's a small contribution, which I hope and pray makes a difference. My involvement in education here at Southampton Solent University attempts to bring the realisation of academic education, how the theory is applied in practice, in the Construction Industry, and in particular for me – to help the student understand the discipline of Architectural Technology, so that they get a glimpse of how the the discipline fits into industry, the opportunities that are out there and to clearly understand the identity of the discipline, the Chartered Institute of Architectural Technologists and the vital role Architectural Technology has to play in construction.'

Student bursaries

November deadline for members applying for hardship funds

The John Newey Education Foundation was created to support students facing hardship whilst studying. Students will be able to use the money to purchase books, put towards course fees and cover childcare among other relevant needs.

There are two bursaries of up to £500 available for entrants, for all members of CIAT except Chartered. Entrants must include a supporting testimony from their course leader with an endorsing signature from the Head of Department.

The deadline for entries is Tuesday 1 November 2016; bursaries will be paid in early December 2016.

For further details contact Jack Wilson, Education and Membership Administrator. Email jack@ciat.org.uk

Ecobuild and Xtratherm sponsor Awards

CIAT is delighted to announce that leading insulation manufacturer Xtratherm is sponsoring the 2016 Student Awards for Excellence in Architectural Technology and that premier industry show Ecobuild is sponsoring the Alan King Award.

Xtratherm provides the construction industry with a range of innovative insulation solutions to meet the more stringent requirements of the Building Regulations and for low and zero carbon building fabric. The Ecobuild show is the UK's largest event for specifiers across the built environment, focusing on sustainability as a driver to innovation and growth. The sponsorship deals follow that with insurance broker McParland Finn, who are sponsoring the Award for Excellence in Architectural Technology.

Join the 'Specials'

The Special Issues Taskforce is responsible for specialist areas in Architectural Technology that affect members – whether it be by writing articles, providing guidance or taking action. Areas include adjudication, BIM, Health and Safety, planning and Party Wall issues. This is a great way to help your Institute and develop your career.

CIAT is looking for members with an interest or expertise in any of the above or other specialist areas. If you are one of them, we would like to hear from you! Contact Graham Chalkley, Assistant Practice Director. Email graham@ciat.org.uk or telephone +44 (0)20 7278 2206.

Spam email warning

Members have reported that they have received emails and correspondence from different organisations or awards committees, advising them that they have been nominated for or have won an award through their practice, and has asked for a considerable amount of money to be paid by the member to ensure the marketing and advertising of this award.

These awards are nothing to do with CIAT and that unless anything is confirmed as endorsed or supported by CIAT we have no control over them and would suggest that members investigate their validity themselves before making a decision to accept or enter such invitations; or delete or add them to your spam emails.

We consider these emails are similar to other types of emails trying to obtain money or personal information.

Dive into Flood Expo

CIAT is pleased to announce its support for Flood Expo this October. Discover the latest ways to design out flooding before it occurs.

The Flood Expo is the largest event of its kind in the world presenting solutions to widespread flooding problems from 200 of the world's leading flood prevention companies, alongside 80 seminars from leading experts such as Jerry Cotter from the US Army Corps of Engineers, an extensive workshop schedule and live demonstrations on the Thames highlighting new, cost-effective ways to prevent and manage floods. Taking place on 12 and 13 October at ExCeL London, you'll find the latest research, products and solutions on the marketplace to help minimise – or even better, entirely avoid – the risk of potential flooding.

To register for your **free** ticket please visit: www.thefloodexpo.co.uk.

New members and re-entry

We are delighted to welcome the following as Chartered Members

027130	Kevin Elliott	01 Northern
016606	Hayley Jones	01 Northern
026667	Hayley Pearse	01 Northern
019537	Christopher Robertson	01 Northern
025232	Simon Kirk	02 Yorkshire
019164	Kieran Mapplebeck	02 Yorkshire
020148	Nick Marriott	02 Yorkshire
022580	Alexander Tempest	02 Yorkshire
025301	Muhammed Chowdhury	03 North West
020484	Yaqoob Malik	03 North West
019645	Nickesh Patel	03 North West
025138	Rastislav Janiglos	05 West Midlands
007668	Paul Koren	05 West Midlands
021140	Hisham Mahyub	05 West Midlands
024698	Joseph Davies	06 Wessex
021945	Nicholas Day	06 Wessex
026759	Benjamin Whitemore	06 Wessex
022976	Steven Cotton	07 East Anglia
022739	Ben Moore	07 East Anglia
025439	Nathanael Hill	08 Central
024528	Elliott Peters	08 Central
021342	Nimit Raval	09 Gtr London
024571	Chris Wilson	09 Gtr London
013627	Alistair Dodd	10 South East
021983	Mark Saunders	12 Western
021984	Thomas Shillitoe	12 Western
013528	Carl Wills	12 Western
020161	Rachel Boyd	14 Scotland East
020549	Robert Thomas	16 Wales Region
019671	Barrie Purtell	C7 Mid E & Africa

Congratulations to the following who have re-joined the Institute:

019124	Richard Hall	02 Yorkshire
017369	John Feehan	15 N Ireland
008642	Paul O'Brien	C2 Rep of Ireland

Congratulations to the following members who have achieved TCIAT:

022071	Philip Tyler	12 Western
026698	Anthony Yates	12 Western

We regret to announce the death of the following members:

010344	George Mortimer	03 North West
007002	Barry Roberts	03 North West
030350	Laurids Green	C6 Europe

Visit your Region/Centre page at www.ciat.org.uk for regular updates

Region and Centre news and events

West Midlands Region 05

UK Construction Week 18-20 October
Supported by CIAT, UK Construction Week (UKCW) brings together all stakeholders within the built environment across every facet of design, build and product innovation. CIAT speakers on 18 October are: Keynote Panel member: Alex Naraian MCIAT. The Collaborative Commercial Supply Chain: Eddie Weir MCIAT, Vice-President Practice. Panel Discussion: Modernisation of Architectural Education for Future Generations: Paul Laycock MCIAT, Vice-President Education. To register visit www.ukconstructionweek.com/register

Greater London Region 09

ICE BIM conference 19 October
The Institution of Civil Engineers (ICE) is delighted to welcome industry leaders at the sixth BIM conference in London, supported by CIAT. Looking to the future of BIM, the conference will offer delegates invaluable insights and opportunity to discuss the progress of BIM development in the UK and abroad.For more information please visit www.ice-bim.com

South East Region 10

CIAT AGM 12 November
The Annual General Meeting will be held at the Spark Conference Centre at Southampton Solent University. The AGM is followed by a lunch for delegates. Booking essential.

President's Ball and Awards 12 November
The President's Ball is an annual Institute celebration, this year hosted by Gary Mees PCIAT. At this event, the 2016 Awards will be announced and presented. The Ball is attended by delegates, industry guests, shortlisted Awards guests and recipients and members.

Tickets include a three course dinner, two bottles of wine per table and a night of entertainment with a live band. This is a wonderful evening of networking, socialising and dancing to celebrate another successful year of CIAT.

For further information and to book any of the above events please visit www.ciat.org.uk/en/media_centre or telephone +44 (0) 7278 2206.

Republic of Ireland Centre 02

Construction Contracts Act 2013
This act came into force on 25 July 2016 and applies to all construction contracts entered into after that date.

There are new rights and obligations for the parties to construction contracts in relation to minimum contract periods, time limits, payments and the right to refer payment disputes to adjudication. The new Code of Conduct sets out the procedures to be followed in relation to the adjudication process. (see www.djei.ie/code of practice) The Department of Jobs, Enterprise and Innovation has set up a Construction Contracts Adjudication Service which will administer the processing of applications to the Minister's Panel of Adjudicators.

Building Control Amendment Regulations Conference, 12 October, Dublin
This conference aims to attract key construction sectors together to learn about the new regulations. There will be a CIAT stand at the event manned by Centre representatives. For further information visit www.cmgevents.ie

Free tickets for CIAT members

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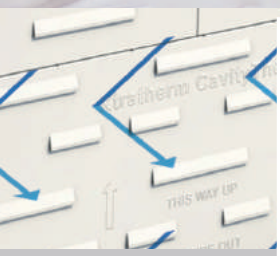
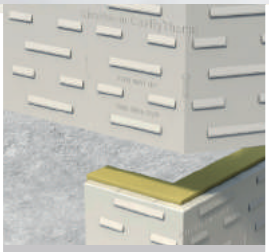
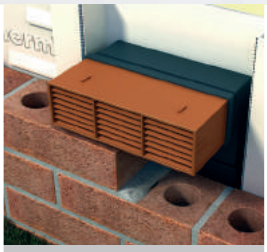


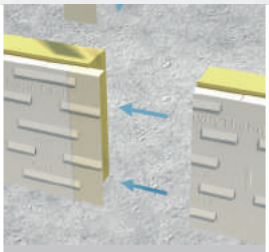
- Integral Rain Barrier



- Preformed Corner Panels

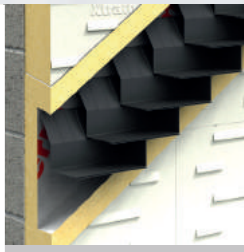


- Service Void Panels



- Jointing Strip

- Hockey Stick Insulation



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