

aspiration

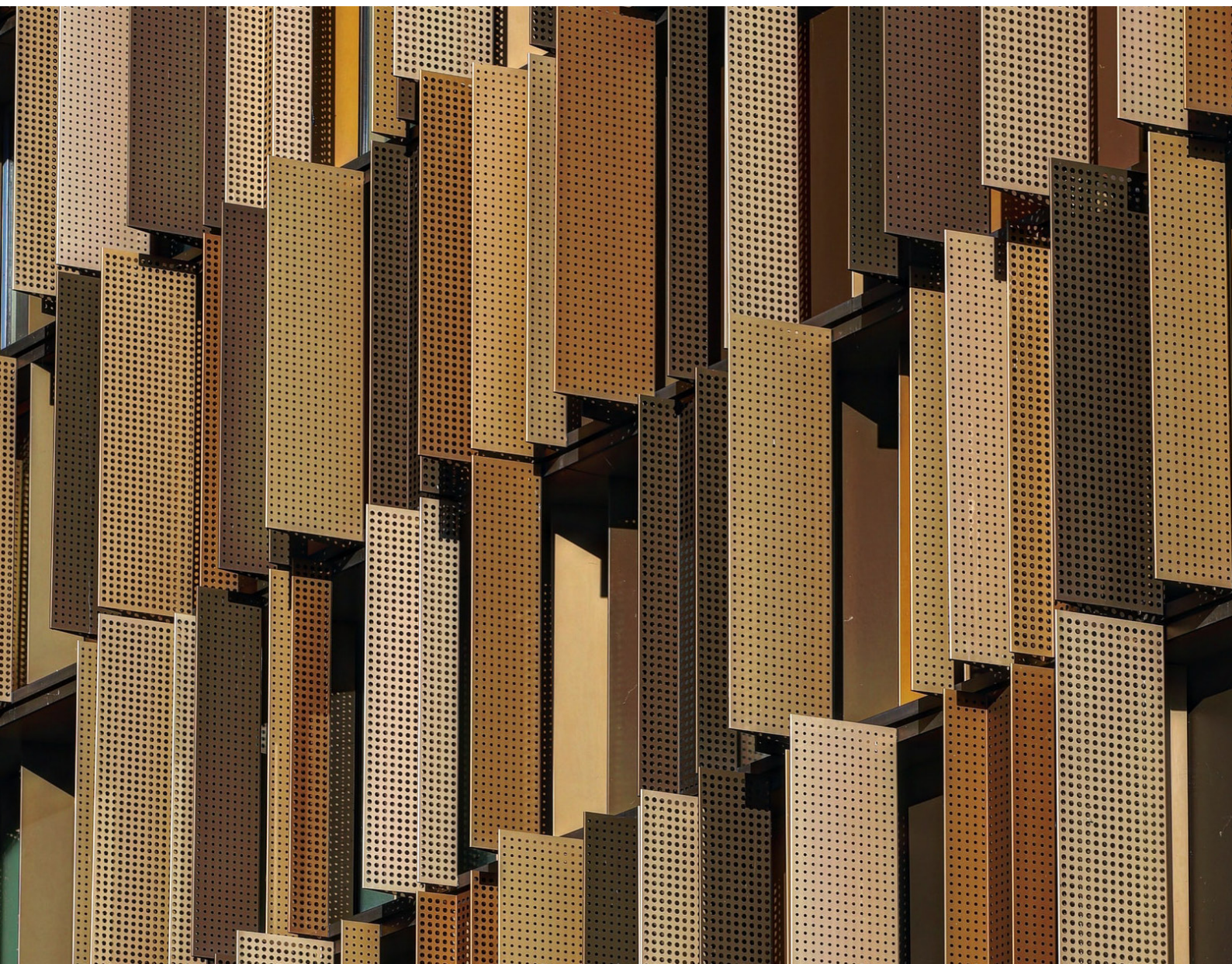
An e-magazine for aspiring
Architectural Technology professionals

Issue 13
Autumn/Winter 2021

AT Awards
Winners 2021

Guide to:
Writing your CV

aspiration at
COP26

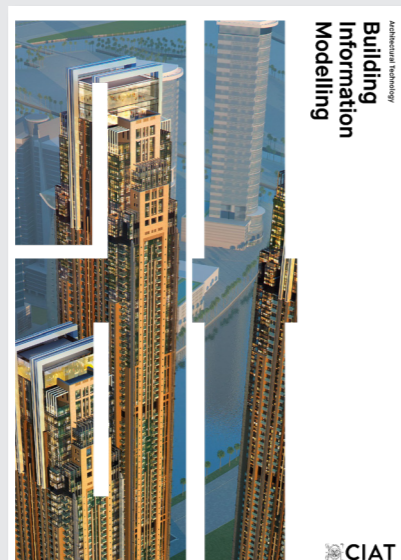
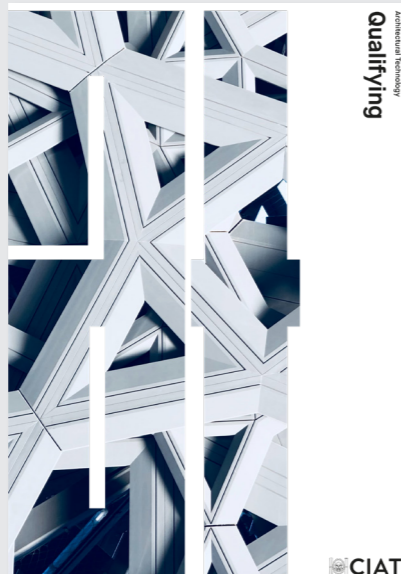


The AT Suite

A suite of literature is available from the Institute

Download it from the website here

More in the series coming soon including Accredited Conservationists



A word from the Editor

Welcome to the autumn/winter edition of aspirATion magazine as another year goes by in what seems the blink of an eye. Once again, we're pleased to be bringing you another issue of insightful features, guidance and support to aid you in your studies, at work and as you develop your career.

This issue, we speak to our 2021 AT Awards Winners from the Student Award categories and you can read more about their winning projects and reports while hopefully being inspired to enter the AT Awards 2022!

The COP26 summit took place in Glasgow during November and aspirATion and CIAT were represented at a couple of events run by the COP26 Built Environment Virtual Pavilion. You can find out more about this from overarching aspirATion Chair William Holland MCIAT on pages 7-8 and aspirATion South East co-Chair Tim Danson on pages 36-37.

As the academic year reaches the halfway point for those of you studying, this issue features an extremely informative piece from recruitment experts Hays, who run you through their guide to writing a CV while our Membership Department tell you how the Institute can support you further with your career and professional development as an Architectural Technology professional once you have graduated.

As mentioned in previous issues, please get in touch as we always love to hear from you regarding ideas for future articles, profiles or features, as well as anything in this issue – this publication is for you and is your chance to have your voice heard, share your experiences, successes, and tips among other things.

I hope you enjoy the festive season and all my best wishes for the New Year.

April McKay
Editor

Get in touch if you have any feedback, ideas or content for the next issue.

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aspirATion

The network supporting
and developing aspiring professionals.

Find out more about aspirATion and
how to get involved...

What is aspirATion?

aspirATion is a forward-thinking and inclusive community of CIAT members and affiliates, made up of students, graduates and newly qualified professionals which provides the opportunity and support for aspiring professionals to develop and grow, all the while inspiring the next generation of Chartered Architectural Technologists. It is the gateway into furthering your career within the discipline.

What does aspirATion do?

One of aspirATion's main aims is to welcome and assist students, graduates and newly qualified members and affiliates into the profession. aspirATion Groups host events such as site visits, practice interviews, networking events and social gatherings on a regular basis. In the current climate, these events are taking place virtually.

aspirATion offers much more than just events however – aspirATion Groups engage regularly with schools and universities through presentations and careers fairs, helping to encourage the professionals of tomorrow into the sector. aspirATion collaborates with other groups within the built environment such as Novus (Chartered Institute of Building), Matrics (Royal Institution of Chartered Surveyors), YEN (Chartered Institution of Building Services Engineers) and FAN (Royal Institute of British Architects).

Why get involved?

With the aspirATion network growing and gaining more traction, the reasons for you to participate are better than ever. There is something for everyone in aspirATion. You may simply want to come along and meet some of your fellow Architectural Technology colleagues, maybe attend one or two CPD seminars, network at an event or seek some support. The continued success of aspirATion relies on new members and affiliates getting involved, attending events and sharing their views.

You can get involved by joining up with your local Group and encouraging your fellow students or colleagues to do so. There are opportunities to attend a variety of events, or even be more proactive and write articles, give presentations and arrange events on behalf of your local Group.

How can you get involved?

It is very easy to get involved and there are many ways of doing so. If you know a Region/Centre Committee member, Programme Leader or aspirATion member, find out about when the next event, CPD or meeting is taking place, and introduce yourself.

You can also contact our Education Department at Central Office by email education@ciat.global or +44 (0)20 7278 2206. The team will be more than happy to introduce you to your Region/Centre Committee as well as your aspirATion Group. Get in touch and become involved with aspirATion and CIAT! ■

Find out more about how aspirATion is structured, who contributes, and its current Group Chairs by visiting architecturaltechnology.com/aspiration



aspirATion Group committee members at the Presidents' Ball 2019 in Glasgow

A word from the Chair



William Holland MCIAT Overarching aspirATion Chair

Hello everyone! I hope that you and your family circles have been keeping well during these very strange times.

For those who don't know, my name is William Holland and I am the overarching Chair of aspirATion. I have over eight years' experience within Architectural Technology, starting my professional career after graduating from Ulster University in 2015 with an Honours degree in the Architectural Technology & Management programme, which is Accredited by CIAT. I began working at Architectural Design Partnership (a CIAT Chartered Practice) during my placement year at university and secured a full-time position within the Partnership upon graduating. Since then, I have progressed within the practice to an Associate Partner with a specialism in healthcare design.

I qualified as a Chartered Architectural Technologist with CIAT in 2017 and have since gone on to be Regional CPD Officer for the Northern Ireland Region as well as Regional Councillor. I became Chair for the Northern Ireland aspirATion Group in 2013 whilst studying for my degree and have been a key contributor to growing the Group substantially, working alongside industry leading companies to connect students with employers and to create networking opportunities. This culminated in being elected to the position of overarching Chair of the aspirATion Group in November 2020.

But enough about me!

I wanted to briefly update you on something that I have been involved with quite recently. In November, I represented CIAT at COP26 as part of the Built Environment Virtual Pavilion,

BUILD BETTER NOW



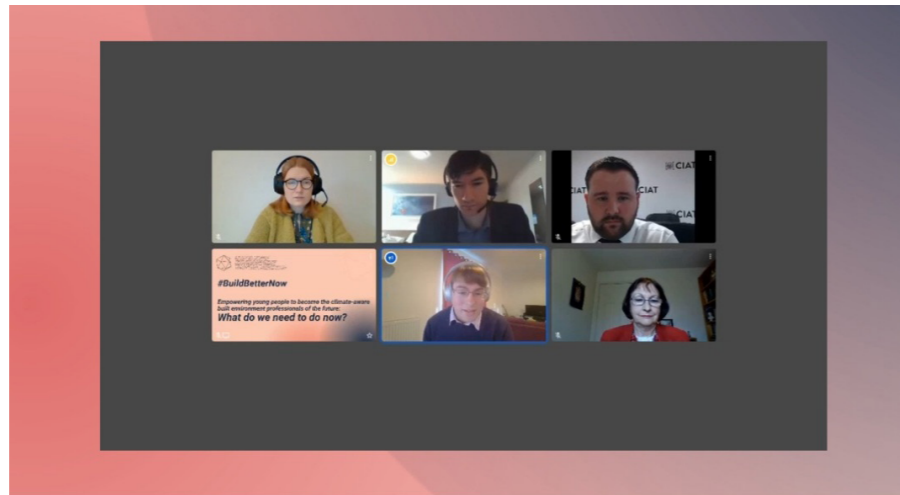
an event series that followed the daily themes of the official COP26 programme. I was featured on a panel titled *Empowering young people to become the climate-aware built environment professionals of the future: What do we need to do now?* and it included a range of built environment professionals such as Chartered Architectural Technologists, Architects, Engineers, and academics.

What made this particular panel event feel so unique was that all panel members were at very different stages in their careers. We had recent graduates through to academics with 50+ years in the industry which resulted in a very informative and interesting discussion.

For those who missed the event, I would like to give you an overview of the questions asked and CIAT's response.

What skills will the climate-aware Built Environment and Infrastructure professionals of the future need to have?

CIAT strongly believes that "young" or newly qualified ATs are already climate aware, and what is important is giving them the confidence to become influencers and leaders, and for their voice, input and solutions to be heard. Architectural Technology professionals of the future are in an optimal position to lead on climate change issues, as their core skills are in achieving sustainable solutions to architectural and design challenges, and they are already implementing the approaches necessary to respond to the climate emergency, in terms of reducing the impact of construction methods, materials and components and minimising carbon emissions.



William (top right) during the Build Better Now panel event

How will these professions need to change and adapt, during the working lives of today's young professionals, in order to meet net zero goals?

Architectural Technologists play a key and critically important role when designing, adapting, maintaining or refurbishing projects of all sizes and types. It would be beneficial if all young professionals focused on the life cycle of a building and where they can contribute, influence and action. It is also important that sustainable communities are created, and projects are not considered in isolation. This would include minimising waste and unsustainable materials and components, optimisation of the production of a building including retrofit, maximising the use of sustainable materials and components to improve performance in use including energy efficiency, disassembly, and recycling of building materials and components.

Young/early career ATs must also appreciate the established building stock, and how they can affect real change in order to refurbish and adapt these buildings to meet the net zero goals. There should also be an appreciation of the context of conservation and how innovative solutions are needed to meet the climate change targets. Knowledge sharing between experienced professionals with the newly qualified are essential to facilitate the best results.

What are the barriers to these changes, and what is required from today's industry leaders to bring about these changes?

The parallel digitisation of the industry and associated digital transformation is problematic as many university departments are not structured in a way to embrace this and there is a lack of this skill set amongst its existing staff, which will impact those starting out in their career of choice.

In the wider industry, change will come through strong legislation. We are currently being inundated with climate change plans and targets being set by built environment organisations, but many miss the important distinction between what clients and contractors request (which is usually dictated by budget) and what is recommended within many of the climate change plans and targets being produced. Architectural Technology professionals and other designers are bound by their clients and contractors. Whilst

industry leaders can set targets and outline plans there should be a greater focus on clients and contractors and creating an understanding of why a more sustainable but often more costly design is favourable. In addition, if the targets set out by industry are set higher than legislation dictates then clients and contractors will almost always opt for designs in line with legislation rather than designs that are more sustainable and potentially costly. Industry leaders should be working with legislators to set high and achievable targets and standards. There should be collaboration and not multiple plans and targets by individual organisations.

How will higher education in the Built Environment and Infrastructure fields need to evolve, in order to enable these future professionals to get the skills they need?

CIAT agrees this is not just about skills and there are many different skills facets. It is practical skills, cognitive skills, professional skills, communication skills, influencing skills, digital skills, ICT skills etc. There is significant underpinning knowledge and understanding required in this subject from environmental and materials science, engineering, design, construction, assembly disassembly, recycle reuse, waste, efficiency, and effectiveness etc., and the various reports, policies, strategies, actions etc. This is more important than skills in and forms the basis and context of skills. Students must have a common and shared understanding and common purpose.

Although I have only presented the views of CIAT here, there was a very distinctive constant throughout the whole discussion and it was that all disciplines within the construction industry need to stop working in silos and opt for interdisciplinary collaboration. ■

You can watch this event in its entirety on demand at the link here.



Strawberry Hill Healthcare Village

Luke Williams
Nottingham Trent University

Visit architecturaltechnology.com/awards.html to find out more about Luke's winning project

Luke graduated from Nottingham Trent University this summer and was one of the Winners of the 2021 Student Award for Excellence in Architectural Technology | Project. He spoke to us about his winning project, how it feels to win, and what the future holds.

Hi Luke. Tell us a bit about where you studied and why you chose your course.

To be completely honest, I knew very little about Architectural Technology before taking the leap into applying to university; I was a little unsure of where I wanted to be in life. It was only by chance I stumbled across an advertisement for an AT position on LinkedIn. From there, the actual thought process of pursuing this route kicked in, and after a great deal of research, I applied to the Architectural Technology course at Nottingham Trent University. Having absolutely no knowledge of architecture before applying was a giant leap for me, but I looked forward to the challenge.

The programme at NTU initially appealed to me because it is accredited by CIAT, but the main selling point was the incredible enthusiasm and passion from the course team; this is what ultimately convinced me to apply.

Were there any specific reasons why you decided to enter the AT Awards| Students in 2021?

The opportunity to present my work to CIAT and the judging panel and receive feedback was an incredibly exciting prospect, and a great deal of encouragement from my tutors was the reason I entered. The opportunity to represent the university at the Awards was extremely exciting; I can't overstate how fantastic the entire AT team at NTU have been over the past few years, and the work we have to show is a real credit to their help and support.

Give us a brief summary of your winning project. Were there any influences on your choices? For example, the sustainability design.

Over the past few years, I've spent time jumping between hospitals, care homes, and day centres and I've learned how incredible but how overworked and overlooked the NHS nursing and care staff are; this, in tandem with ageing facilities and a lack of bed space was the first inspiration for this project. I wanted to create a new dementia centre that would help ease the overcrowding problem within the Nottinghamshire area. The ideology of Strawberry Hill is the union of compassion and well-being; it's incorporating a homely environment with a friendly atmosphere.

The development's initial goal was to create a social hub as a focal point of the care village by setting an architectural precedent to kick-start sustainable developments to rejuvenate the area. The form and aesthetics have been created to feel almost naturally flowing. The heavy use

of timber, inspired by Scandinavian architecture, brings a warm, welcoming feeling to the building, making a significant change from the typical sterile feeling of healthcare developments.

for myself – it's a real testament to their hard work. Being a joint Winner with one of my closest friends (Craig Gregory) is the icing on the cake to four incredible years at NTU.

To receive an award from CIAT is a huge deal when considering your professional profile, and it's given me a great deal of confidence in my ability and potentials as an Architectural Technologist.

Can you give any advice or tips to those thinking of entering the AT Awards 2022?
The main piece of advice I can give to anyone thinking of applying is to enjoy the process. It's a fantastic opportunity to be able to enter and the chance to work with your tutors or those supporting you is a real privilege. The best tip I could give is to really convey the ideologies of your project and demonstrate your understanding of the building methodology. The question of why the project has been proposed and how it's going to be built should correlate, and the reasoning should be clearly defined.



© Luke Williams

What were your impressions of the AT Awards event?
The AT Awards event was a wonderful afternoon; it felt like a really special occasion, and everyone from CIAT and the venue staff made the whole event an incredibly enjoyable experience. The opportunity to represent NTU was an honour, and being able to stand amongst my peers and celebrate the discipline of Architectural Technology was a pleasure.

How does it feel to have won the Award?
I really didn't expect to take home any of the awards so I was over the moon to just be a Finalist; it was a real honour to be shortlisted with the other fantastic projects and every Finalist should be incredibly proud of their achievements.

Initially, I was shocked when I was announced as one of the winners; it took a while to sink in! The experience was quite overwhelming, and I was more excited for the AT team than

What are you up to now that you have graduated?

I am currently studying for a post-graduate degree in Digital Architecture and Construction at Nottingham Trent University. With the construction industry's progression into more technical, digital architectural principles and advancement into higher levels of BIM maturity, the opportunity to further study this and develop my knowledge in this area is an excellent opportunity to enhance my profile and career prospects.

Are you working on anything interesting?

At the moment, I'm in the process of developing the research proposal for my Master's degree dissertation, "The Utilisation of Digital Architectural specifications for the optimisation of Mass Timber Construction". The aim of the research is to develop the methodology that allows Architectural Technologists to optimise mass timber construction specification at an early stage. The project-based research will explore the paradigm shift in digital architecture and mass timber construction through the application of parametric design and Building Information Modelling. ■



Winner
2021

STUDENT AWARD FOR
EXCELLENCE IN ARCHITECTURAL
TECHNOLOGY | PROJECT

Eco-Quarter: Sustainability Hub

Craig John Gregory
Nottingham Trent University

Visit architecturaltechnology.com/awards.html to find out more about Craig's winning project

Graduating from Nottingham Trent University this summer, Craig was the second Winner of the 2021 Student Award for Excellence in Architectural Technology | Project. He tells us a little about his winning project and what he's up to now.

Hi Craig. Tell us a bit about where you studied and why you chose your course.

I began my studies at Nottingham Trent University (NTU) a bit later than most as a mature student; after leaving the Armed Forces where I was trained as Design Draughtsmen in the Royal Engineers. So I guess for me, it felt like a natural progression and logical route to pursue a BSc in Architectural Technology at NTU, as it was more suited to my previous background in technical detailing and construction.

What made you decide to enter the AT Awards| Students in 2021?

To be honest, I did it on a whim. I sat there and thought, what have I got to lose? I was especially pleased with my project upon completion and I felt that with the current global economic, ecological and sustainability issues that are present in our everyday lives, this proposed scheme was worth being showcased to a wider audience, helping to publicise the solutions that are available out there to help in creating a possibility for future urban planners and developers.

I also wanted to take on this challenge and demonstrate what I had learnt at university. I wanted to show my skills and experiences off to the public, and by entering the AT Awards, this was one way to do it.

Tell us a bit about your winning project. Were there any influences on your choices? For example, the ecological choices made in relation to the structure, the fabric, and the services in the design?

It was a potential solution to the ever increasing problem in carbon reduction whereby I wanted to demonstrate our own lack of understanding within the food process chain and an additional method into "re-greening" dilapidated urban areas. By the inclusion of a greater bio-diversity scheme, that was to be introduced alongside the development. This was to be achieved by the creation of a communal vertical farming facility; that focused heavily on sustainability techniques, Passivhaus principles and an overall lifecycle reusability of the site and materials used in its construction.

My material selection was based on renewable sources in the form of Glulam and CLT to form the structural framework, as well as the floor and wall components. The glass facades had been manufactured with recycled aluminium as a part of their framework in addition to being Passivhaus accredited for their insulation and air tightness properties.

The introduction of a sustainable urban drainage system and improvement to a natural bio-corridor along the River Trent allowed a greater development of wildlife to the area and a thorough *Bio-Diversity Action Plan* was a key component towards the final design solution.

What did you make of the AT Awards event?

Arriving at Kennington Studios in Central London was a strange experience. I was not sure what to expect; this was the first time I had been invited to a live award ceremony, but I felt both privileged and shocked at being there amongst the other Finalists. It was an amazing experience to be a part of. I thoroughly enjoyed the evening and being able to meet and discuss ideas amongst other Finalists, as well as networking with established members of the CIAT community. The event felt intimate and special and it's an experience I will not forget.

The AT Awards| Students can be a kind of springboard for students/graduates entering industry. Has it had any kind of effect on your post-graduate career/life?

The whole process has been extremely useful for networking and getting my design concepts out into the architectural community. I am enthusiastic about improving both bio-diversity and recyclability of construction components, and I am very keen to get more involved with aspects of BREEAM/LEED design solutions; this was a detailed concept that I am glad had been noticed within my work. I have had several individuals recruiters and company directors connecting with myself on LinkedIn and have been congratulated for my efforts for the 2021 Awards. It has also helped to reinforce NTU as a higher educational establishment deserving of its CIAT reaccreditation for both BSc and MSc in Architectural Technology.

For now I am currently studying for my MSc. However I am certain this experience will help me gain future employment upon completion of my studies in September 2022 onwards. The Award will look impressive on my CV and the work



within my portfolio will hopefully represent it also.

Do you have any advice for those thinking of entering the AT Awards 2022?

Just give it a go! It may seem daunting at first but once you start putting the work together and think about the fact it is going to be moderated by someone other than your university tutors, you begin to redevelop and define the presentations skills you already possess for potentially having to showcase to real life clients on proposed real life projects.

I personally think the AT Awards is a great thing for students and newly qualified ATs. It gets you noticed within the CIAT community, it builds up your confidence in your own ideas as well as developing your portfolio/CV – being able to mention that you had submitted your ideas for an award shows future employers you aren't afraid of being rejected for your work and instead you had the confidence in your own ideas and strong belief in your work. So to everyone who is unsure of submitting, just have a crack at it; you have nothing to lose and everything to gain.

Now you have graduated, what are you up to?

I am currently enrolled onto NTU's postgraduate MSc in Digital Architecture and Construction where we are learning to develop and improve our existing knowledge of AT in the fields of *Historical Building Information Modelling* (HBIM), *Building Energy Performance models* and *Parametric Modelling* for future architectural designs. I've also decided to form my MSc dissertation on the creation and conceptual design for *Improved Sustainable Refugee Housing*; that is more maintainable and will have a longer life-use than existing solutions used to date.

Finally, are you working on anything interesting?

I'm in a strange state of limbo at the moment; but as a member of 170 Engineer Regiment (reserves), a unit that focuses on construction and infrastructure aspects of the MOD, there is a dedicated team within called the Reserve Innovation Working Group that is focusing on updating and digitising the MOD in line with the UK's mandate for BIM integration level 03 (and above) by 2025. So whilst still studying, I am assisting alongside other reservist personnel in digitising the MOD's assets by implementing BIM technology for use in both facility management and "Digital Twin" concepts. This is all in an effort to reduce the MOD's carbon footprint and building life-cycle costs and future maintenance of their properties, in line with COP26. ■

Space Layout Design: Developing a Workflow to Enable Communication to Those with Autism Spectrum Disorder, Investigating the Potential Use of Augmented Reality

Winner
2021

STUDENT AWARD FOR EXCELLENCE IN
ARCHITECTURAL TECHNOLOGY | REPORT

Josephine McGoldrick ACIAT
Ulster University

Visit architecturaltechnology.com/awards.html to find out more about Josephine's winning report

Josephine was the Winner of the Student Award for Excellence in Architectural Technology | Report in 2021. She graduated from Ulster University in the same year and speaks to *aspirATion magazine* about her experiences of entering the AT Awards and life after university

Hi Josephine. Tell us a bit about where you studied and why you chose your course.

I studied Architectural Technology and Management at Ulster University in Northern Ireland. I have always been fascinated by design and technology and intrigued by the formation of buildings. However, I never felt I fit into the 'typical' roles, such as Architects, Contractors or Engineers. This led me to discover Architectural Technology. The reason I chose this path is because Architectural Technology brings new approaches to how design is achieved while opening up more opportunities that are not considered typical for the industry. During the course, I got the opportunity for industry experience which brought a new perspective, highlighting that there are many routes you can take as an AT and solidifying that this course was the right choice for me.

Were there any specific reasons why you decided to enter the AT Awards| Students in 2021?

Ulster University are spectacular advocates for CIAT and the AT Awards and from the beginning have encouraged students to be a part of CIAT. From my first year of studying Architectural Technology I have either kept up to date or watched the Awards and have been inspired by the Finalists in each category, especially in the Student Awards. Alongside this, Ulster University has had a number of Finalists over the last few years which encouraged me to participate as well. I am over the moon to have had the opportunity to showcase my work and be a part of an elite group with other extremely talented people.

Tell us some more about your winning report. Were there any influences on your choices, for example focusing on the use of technology to help those with Autism Spectrum Disorder?

Recent years have seen a shift in the design of educational buildings, with a move towards flexible learning spaces. While this has undoubtedly benefits in terms of student engagement, innovative delivery, and exciting learning approaches, it potentially presents a challenge for those with Autism Spectrum Disorder (ASD). My study produces an effective method of both space planning and enabling communication with students to help them adjust to newly formed layouts for teaching spaces.

I have always believed that technology is the future and can contribute to how we design. I have a huge interest in Augmented and Virtual Reality and how it can be utilised. The step up into higher education is huge, which can cause

anxiety or fear by the idea of huge numbers of people and large and unfamiliar buildings. This is especially so for those with learning difficulties who are not always considered. Those with ASD are a particular group who can find higher education challenging and it has been discovered that technology can help ease feelings of anxiety. This is where the link with the discipline comes into play and allows us as ATs to facilitate that role in helping to ease the transition by using visual outputs, such as augmented or virtual reality. Technology, particularly AR and VR are user friendly and can help ease the transition into higher education by creating virtual spaces with which they can become familiar with. Our role in producing that virtual environment using technical and digital skills, can contribute to designing an environment every can feel welcome to and that the end-user can have a part in creating

What did you think of the AT Awards event?

I don't think words can truly describe how incredible the AT Awards were this year. Coming from Northern Ireland, I didn't know a huge amount of people, and getting to meet so many incredible individuals was an experience of a lifetime. It was such an honour to be able to attend and be among such amazing and like-minded people. As President Eddie Weir likes to say, what a wonderful time to be an AT!

How does it feel to have won the Award?

I feel so deeply touched and honoured to have won this Award. I am still on cloud nine from the entire experience. It is great to see my hard work on this report get this recognition. I want to thank CIAT and the judges for their comments and acknowledgement and also to the Ulster University team for their help and support in entering the AT Awards and for believing in this report. The AT Awards have provided a huge boost for me and the potential I have, and I cannot wait to see what the future holds.

Have you got any advice or tips to those thinking of entering the 2022 Awards?

Go for it! My biggest tip is to just enter, no

matter the hesitation – believe in yourself. It was the best decision I ever made. For this category I feel it is important to find an area that you feel passionate about. It helps you to explore the topic thoroughly and enable you to produce a report that could have huge potential and possibility. Surround yourself with people who believe in you and who want you to succeed. It will be challenging, and you will have to put in a lot of work, but the hard work always pays off and the reward is worth it.

What are you up to now?

I am currently working for Hyphen Architecture in their Irish office as an Architectural Technologist. It has been a challenge to adapt to working for a practice after university, but I have dived into it and have given it my all. I cannot wait to see what the future has in store for me.

Are you working on anything interesting?

I am delighted to say that my research conducted for this report has been adapted and has received funding as part of Ulster University's Strategy for Learning and Teaching Enhancement. This allows my research to continue and see where it can potentially go and be a part of Ulster University in enhancing its teaching methods for both staff and students. I am lucky to be a part of the team and assist on the project. It's extremely exciting to see where this research can go and I'm honoured that Ulster University can see its potential. ■

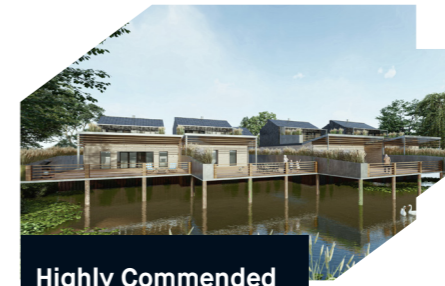


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AT Awards | Students Winners & Finalists

aspirATion magazine takes a look at the other Winners & Finalists in the Student Award categories

STUDENT AWARD FOR EXCELLENCE IN ARCHITECTURAL TECHNOLOGY | PROJECT



Highly Commended

The Home Office Project

Harvey Hale ACIAT,
Anglia Ruskin University

The 6.79 acre plot is owned by a commercial group who have recently relocated and want to develop the site innovatively in the wake of COVID-19. The brief is to create a mixed-use development that allows professionals and their families to live and work within a resilient community that strives towards self-resilience and healthy living.



Finalist

The Centre of Agricultural Innovation

Eleanor Boardman ACIAT,
Nottingham Trent University

The Centre of Agricultural Innovation is proposed to form a combined Exhibition, Education and Research facility within the Norwich Research Park (NRP), introducing a community element to break down the barriers between science and the public. The NRP presented a brief to create a gateway building to establish the park's new entrance and presence, and to facilitate a new specialism into the field of vertical farming.



Finalist

Arch Climbing Wall Development

Thomas McGinnity ACIAT,
University of Westminster

The Arch Climbing Wall is located in Bermondsey, next to a railway line. The new building utilises the railway with its height allowing passengers to see it from their point of view on the train. The retrofit of the existing building, as well as the construction of the new building, aims to highlight the connection between nature and climbing. To express this connection, climbing walls were constructed and set out to represent mountain ranges and valleys.



Finalist

Proposed High-Rise Tower Sustainability Re-Design at Anglia Square, Norwich

Kori Moore ACIAT
Anglia Ruskin University

The brief was to design a 25 storey high rise building which will set the design precedent for the rest of the site on its next planning application. The structural proposal will use a structural glulam frame and all entrances to the building have compliant level thresholds with a sill that does not raise up by more than 10mm. There is to also be a step free route constructed and maintained within the site at all times for easy access of wheelchairs.

STUDENT AWARD FOR EXCELLENCE IN ARCHITECTURAL TECHNOLOGY | REPORT

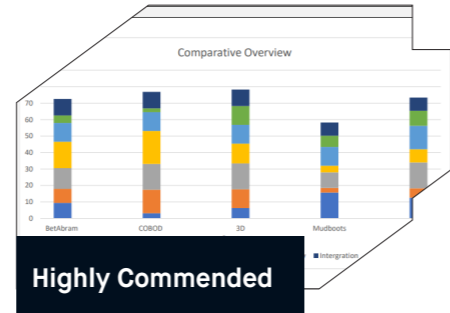


Commended

A Technical Report Study Exploring the Use of Re-Purposed Aggregates and Cement Along with Curing Techniques to Create Concrete to Different Design Strengths For Use in a Theatre

Daniel Green,
Coventry University

This report explores the appropriateness of recycled tire aggregate and fly ash as recyclable aggregate and cement alternatives. It examines compressive strength capabilities, measuring velocity via an ultrasonic pulse and by recording resistance to pressure by rebounded impact.

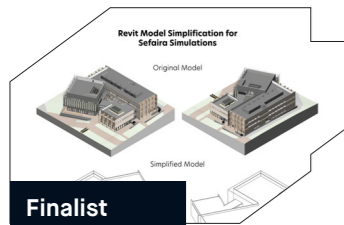


Highly Commended

A Pairs Comparison and Value Analysis of Current 3D Printing Construction Technologies in Coherence with Industry Defined Innovation Value Drivers

Aaron Richardson,
University of Strathclyde

This piece of research presents an entirely new perspective, in parsing the 3D construction technologies currently through the lens of a traditional value management study. In-term this research piece has concluded key recommendations on the best systems to use in order to achieve key innovation value drivers defined by industry professionals.



Finalist

Early Design Stage Daylighting Optimisation: The Effects on Visual Comfort and Energy Efficiency in Laboratories

Eleanor Boardman ACIAT,
Nottingham Trent University

Daylighting is a principle of design that is known for its benefits to enhance visual comfort, whilst reducing the requirement for artificial lighting. Using a mixed methodology, this research aims to parametrically optimise daylighting strategies for visual comfort and energy efficiency within laboratories. Specifically, the parameters for alteration included louvre spacing, light shelf length and sill height.

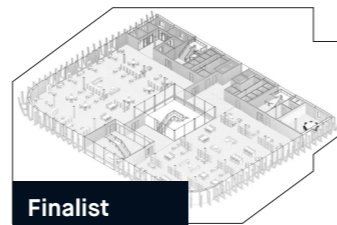


Finalist

Investigating Delamination of Glulam Beams Produced with Different Types of Adhesives

Klaudia Krawieczek ACIAT,
Coventry University

This Report is an investigation into delamination of glulam beams built with different types of adhesives which aims to establish which glue performs best under applied loads. The conclusion was reached that PVA was stronger than expected and MUF was the strongest in terms of delamination resistance, while PU performed the worst.



Finalist

The Design of COVID-19 Friendly Spaces – The Impact of Conventional, and Emerging Digital Media on the Perception of Architecture Subject Group Students

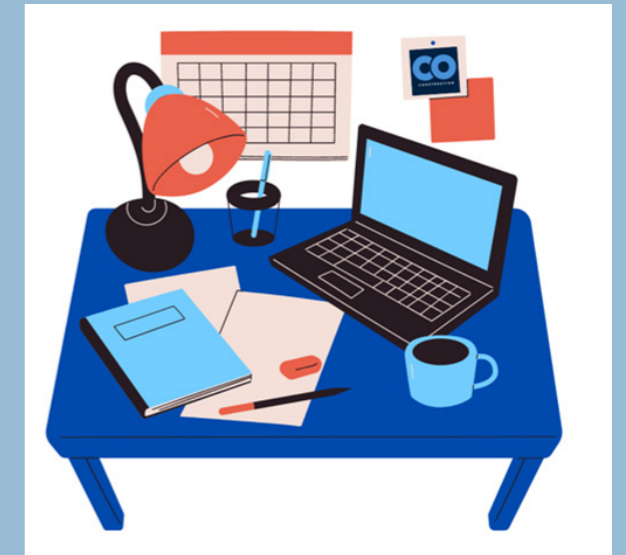
Gareth Thomas,
Nottingham Trent University

This report aims to investigate to what extent conventional and emerging media methods such as simple and complex animation and 2D density mapping can benefit the architectural design of contagious pandemic-friendly spaces, in comparison to more conventional media methods such as 2D and 3D visual observation.

How to: Lead a productive lifestyle at university

Words by Klaudia Preus, aspirATIOn Chair for Greater London Region

The new academic year is well underway but studying at university is not all that you have to take care of during that time. Whether you end up implementing all three or just the one, these tips might help you make the time at university both productive and enjoyable!



1. Workload organisation

The first week or two is a period for you to get to know new surroundings and other students in your class – no need to panic that you should be already writing an assignment! Also, it is worth taking the time to look around and say hello as you may be asked to choose your partner for group work in the near future!

Once you receive the assignments and deadlines for their completion, mark them in the calendar. Then, make a plan that will help you achieve the set goal. To have the assignment completed on time, make for yourself or your group sub-deadlines, and stick to them as much as possible. This will help you to stay on top of the workload. In the meantime, do not forget to take breaks to rest and to be able to use the assigned work time productively.

2. Workspace organisation

Creating a study space – or finding one on campus, for example in the library – will enable you to ensure effective use of time. Remove items in your surroundings that could distract your focus and prolong the studying time. Having all the materials you have at hand will also help you avoid moving away from the workspace and getting distracted!

Moreover, keep your digital workspace organised. Resetting your desktop, removing apps that are no longer in use, clearing your browsing history, closing tabs, naming the files appropriately – these will help you be organised while working, and save time in the long run.

3. Avoid time stealers

Procrastination is known to be a thief of time and productivity. Therefore, list your tasks, prioritise and maintain your routine. Also, by cultivating self-discipline you will learn to tackle work at hand and maintain the work-life balance, with enough time for rest!

Perfectionism is another time stealer. Setting yourself the goal of delivering high-quality work is commendable! However, setting too high standards might result in disappointment. By modestly acknowledging that the learning process does not require perfection and that as a student you are not required to know everything, you will be able to use your time more effectively. Also, do not hesitate to ask your friends or lecturers for help. It is not a secret that you are at university to learn! ■



Guide to: writing your CV

Words by Hays

When you are looking for your next job, your CV is the first impression an employer will have. You need to make sure you stand out and showcase your skills and professionalism. Follow this guidance to make sure yours is the best it can be.

Presentation and layout

Your CV must look clean and well structured, with enough white space to enhance readability. It should be no more than two pages long, unless you are including project details. Use a simple font like Arial, 10-12pt, and keep formatting, such as italics and underlining, to a minimum.

Bullet points are extremely useful as they allow you to highlight key points succinctly and keep the document looking tidy.

Try to start each one with an action verb if you can ('created', 'managed', 'increased', 'improved') rather than overusing 'I'.

Spelling and punctuation must be perfect, so after you proofread and spell-check, give it to a friend or family member to do the same. Employers are inundated with many applications and unnecessary mistakes can mean yours end up in the 'no' pile.

Look for key words and phrases

The best place to start the CV tailoring process is to go through the job description, highlighting the key words and phrases. List these on a separate piece of paper, grouping them into the following categories:

- soft skills;
- technical abilities; and
- job experience.

This will make it easier to incorporate the key words and phrases into the relevant sections of your core CV; the personal statement, skills and employment history respectively.

Tweak your personal statement

You should tailor your personal statement and explain to the reader why you are keen to work not just in this specific industry, but with this particular company.

Make sure that your personal statement mirrors the qualities, character and experience specified by the job description, and try to fit the tone of your statement to the style of the job description. This will grab the recruiter's attention and pitch you as the perfect fit for the job.

Go over your educational and work history

Finally, take some additional time to polish your education and work history. It is important not to embroider the truth, so everything in your employment history must be true, but you should adapt it by making sure that you highlight those duties and achievements that are also mentioned in the job description. This will further underline how well suited you are to the role.

Tailoring your CV does require a little extra time, and probably means that you can't fire out dozens of applications a day. But when it comes to today's ultra-competitive job market, quality always wins out over quantity. So give yourself the best possible chance of standing out and make sure every CV you send out is tailored and targeted towards the most important result, getting that interview. ■

Basic CV structure

Name, address and contact details

Be sure to use the phone number and email address that you most often utilise so that you can reply to potential employers in a timely manner. There is no need to include details such as date of birth, gender or marital status.

Personal summary

This is optional but it's a good opportunity to highlight in a few sentences what you hope to achieve in your next position and what you feel you can uniquely offer the employer. Tailor this section to each job position you are applying to.

Skills summary

Including a skills summary can capture the employer's attention by making it immediately clear what you can offer. Compile a brief bulleted list of any skills and experience which are relevant to the role. Wherever possible, use the same adjectives as those used in the job advertisement.

For instance, if the ad specifies someone who has 'effective administrative abilities and excellent interpersonal skills', these should be addressed under your skills section with brief evidence as to where you gained those skills. Make sure to always tailor your skills and expertise to the individual position you are applying for, rather than sending the same CV to all the jobs you apply for.

Relevant experience

This is your work history and includes paid work and any relevant volunteer or work experience placements. Work backwards from your most recent job and don't leave any gaps; you don't want to give potential employers any cause for concern. If you took a year out, carried out an interim assignment or travelled for six months, say so, and focus on the fact that it gave you some excellent skills and experiences.

Achievements

A future employer will be interested in occasions where you went above and beyond your duty and achieved something great. So, if you have been 'employee of the month' for three months running, say so. All achievements should be quantified and professional memberships included, even as students, as it demonstrates your commitment to your future career.

Education and training

Use your common sense here. If you have an advanced degree, few people are going to be concerned about the exams you took when you were 16. Also include any training courses you have completed that are relevant to the job position.

Interests

These are optional, but should you choose to include a section, keep it brief. Avoid saying anything contentious, and wherever possible, use the space to show how your personality is suited to that of the business you're applying for.

References

Actual references are rarely included and it is usually fine to simply say 'references are available upon request'. The employer will then make later arrangements to contact the referees.



Upgrading your student membership

Words by James Banks, Membership Director

If you have recently completed your studies we want to demonstrate our ongoing support and commitment to your future career and professional development.

CIAT is here to support you with your career and professional development as an Architectural Technology professional after you graduate.

We have collaborated with Hays, the largest recruiter in the UK and Republic of Ireland, and created an employability guide (click here to view it) which provides helpful tips and information regarding CV preparation, how best to apply for jobs and prepare for interviews, as well as advice on being offered the job and starting a successful career. In addition to this, click here to check out our AT|jobs site as well as other recruitment agencies which can advise and support you at this time.

Upgrading your student membership to either Associate, ACIAT or affiliate status with CIAT demonstrates to potential employers your commitment to your career progression. We encourage you to upgrade as soon as possible and no later than in the same year as programme completion to take advantage of a two-year staggered supportive subscription. These rates are:

Year 1
£145 (instead of standard rate £295)

Year 2
20% off standard full subscription rate

To take advantage of this, you can upgrade online at architecturaltechnology.com/joining.html

A suite of films about the qualifying process can be viewed on our YouTube Channel at youtube.com/CIATechnologist

For any queries related to upgrading or registration, please do not hesitate to contact membership@ciat.global

4 reasons to upgrade

Accountability



Demonstrate your commitment to the highest professional and ethical standards in Architectural Technology.

Support



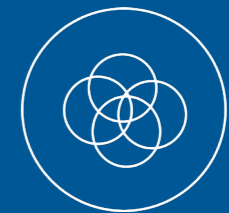
Dedicated support with professional progression and a range of information and resources.

Development



Attend CPD events locally and through our AT CPD Register and receive specialist support via MentorMatchMe and Technology Network.

Networking



Engage with your peers and fellow professionals. Make new contacts, exchange ideas and expand your professional and social networks.

To take advantage of our supportive subscription offer, upgrade online at architecturaltechnology.com/joining.html and use code SA21 to receive your staggered subscription rate

Get the support you need

Whether you're feeling the pressure of work or study or facing problems with your health or home life, we can help you get the right support at the right time.

Here when you need us

We're proud to work in partnership with Anxiety UK (AUK) to provide practical and effective support to those experiencing stress, anxiety and anxiety based depression.



All students can receive:

- Annual membership of Anxiety UK (including access to reduced cost therapies and many more.)
- Dedicated email support
- Dedicated phone helpline

Students with one year's experience in UK industry can also receive:

- Wellbeing assessments
- One-to-one therapy including CBT, hypnotherapy & acupuncture

Please contact us today

ABS helpline **020 3918 8588**
or email help@absnet.org.uk

  [@ArchBensSoc](https://twitter.com/ArchBensSoc)

www.absnet.org.uk

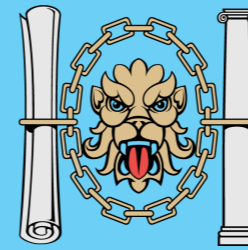
Registered charity no 265139

QuizMas

Join us for some festive fun and sign up your aspirATion team in our virtual quiz. CIAT Immediate Past President Eddie Weir will be your host alongside Jane Duncan PPRIBA OBE & Adam White PPLI. All funds raised will support our 2021 Christmas Appeal.

7th December 2021

Get more on our events and sign up at absnet.org.uk/news-events



CIAT SHOP

Shop @CIAT – the only place to pick up official CIAT apparel and merchandise in our online store.



Take a look at our wide range of CIAT/AT branded giftware available, from mugs to official branded clothing – there is something for everyone!

Visit architecturaltechnology.com/ciat-shop.html



aspirATion Group: Current opportunities

aspirATion Groups currently have opportunities for the role of Chair in:

- Northern Region
- East Anglia Region
- Republic of Ireland Centre

The Chairs work with the established Regional/Centre Committee, educational establishments running CIAT Accredited programmes, colleges, peer groups such as neighbouring aspirATion Groups, members of BRE Academy, CIOB Novus, RICS Matrics, FAN, YEN, and industry professionals within CIAT's Regions/Centres to organise events, which include socials, CPD or site visits.

If you are interested, please submit a personal statement outlining what you could bring to the role of Chair relating to the aspirATion Group terms of reference:

- *Engage with and increase the potential for participation among current students, graduates, Associates and affiliates and recently qualified Chartered Architectural Technologists.*
- *Exchange ideas for the promotion of Architectural Technology and discuss ways to support current and future members and affiliates as they embark on their career in Architectural Technology.*
- *Work collaboratively to promote the Institute including its initiatives, activities, objectives and constitutional processes to potential AT professionals and other associated professions.*
- *Promote Architectural Technology as a career of choice.*
- *Provide a focal point for the Institute's activities and objectives relevant to aspiring Architectural Technology professionals, and recently qualified Chartered Members.*
- *Maintain a dialogue with the Institute's other Groups and Committees regarding issues that may affect aspiring Architectural Technology professionals and recently qualified Chartered Members.*
- *Be the link between the Region/Centre aspirATion Groups and Central Office.*
- *Report to Council on the activities of the Committee and the Region/Centre Groups.*

You need to be a student member, Associate member, affiliate or a Chartered Member for five years or less. Please send your expression of interest to education@ciat.global by **31 January 2022**.

For further information or if you would like to talk about the role, please contact Noora Kokkarinen, Assistant Education Director, n.kokkarinen@ciat.global or Dorota Fitzpatrick, Assistant Membership Director, d.fitzpatrick@ciat.global

Practice information, education and guidance



Is running your own Practice a career aspiration? Is it your goal to run your own business as a Chartered Architectural Technologist or in partnership or co-directorship with others?

To give you a flavour, we have produced some information on what it requires, what CIAT provides you as a practising Architectural Technology professional, and how you would establish your own CIAT Chartered Practice.

Please visit architecturaltechnology.com, log in to the My CIAT area and select *Practice information, education and guidance*.

Realling in Virtual - lessons learned from the past year

Words by Tim Danson, co-Chair for aspirATion South East Region

The School of Design and Architecture at the Manipal Academy of Higher Education co-organised their 7th Annual Symposium on Design with CIAT. Tim Danson and Alex Judd MCIAT were invited to write a paper to present at the symposium, discussing the transition to remote working from the perspective of an Architectural Technology student and a graduate seeking to become a Chartered Architectural Technologist during the COVID-19 pandemic.

After a busy first year both in our aspirATion roles as well as professionally and academically, the invitation to reflect on our experiences of the last year was an interesting but welcome one. We have both felt accomplished and proud to have collaborated with many in aspirATion to deliver so many well received events in the virtual space that until recently we have all been living in. Alongside this, we celebrated our own personal accomplishments – Alex in particular, having become a Chartered Architectural Technologist all in the same virtual space. This is something that I have only just had the opportunity to congratulate him on in person – we had never ‘met’ before despite having worked together for over a year. The eagle-eyed among you will also recognise, from the photo over the page, sitting with us is Region 10’s very own Chartered Architectural Technologist of the Year 2021, Tom Gray MCIAT, having committed himself to funding all drinks for the year in celebration of his own accomplishments (thanks Tom and congratulations again)! I just got through the first year of an Architectural Technology degree and I am glad to be (metaphorically) sat on their shoulders!

But back to the point of the paper and the presentation to Manipal Academy’s Design Symposium: the tale of how we achieved these things. The story of being a student seeking the skills, understanding and insight of an Architectural Technologist from the confines of their own home is worth telling as it describes a future where we can apply the many surprising lessons of the past 18 months. I only describe the cohort of students that I studied with, and it is important to recognise that this story is different for students of different year groups and likely at different universities.

However, the cohort of students I describe were successful and I know everyone feels proud of what they achieved. We met virtually on a frequent basis, practising our online communication skills (I won’t spell out the open microphone hell that I know everyone experienced!) and collectively revising subjects and answering practice exams together.

Our lecturers supported us above and beyond what could reasonably have been asked for, encouraging us every step of the way despite all of us feeling frequently overwhelmed at adapting our homes to incorporate drawing boards, and practising the skills lecturers hastily imparted to us in the few weeks they had to teach in person before lockdown restrictions confined us more fully to our homes.

I know that some educational institutes had resources available to adapt the homes of their educators, but for our own lecturers I know that they had to quickly devise their own strategies and collaborate with each other to understand best practices as well as equip themselves through their own efforts and what support the university could provide at a time when the whole world competed for webcams and microphones. I won’t pretend that it wasn’t a bumpy ride, but I know that we would not have succeeded in our journey without them.



L-R: Tom Gray MCIAT, Tim Danson and Alex Judd MCIAT

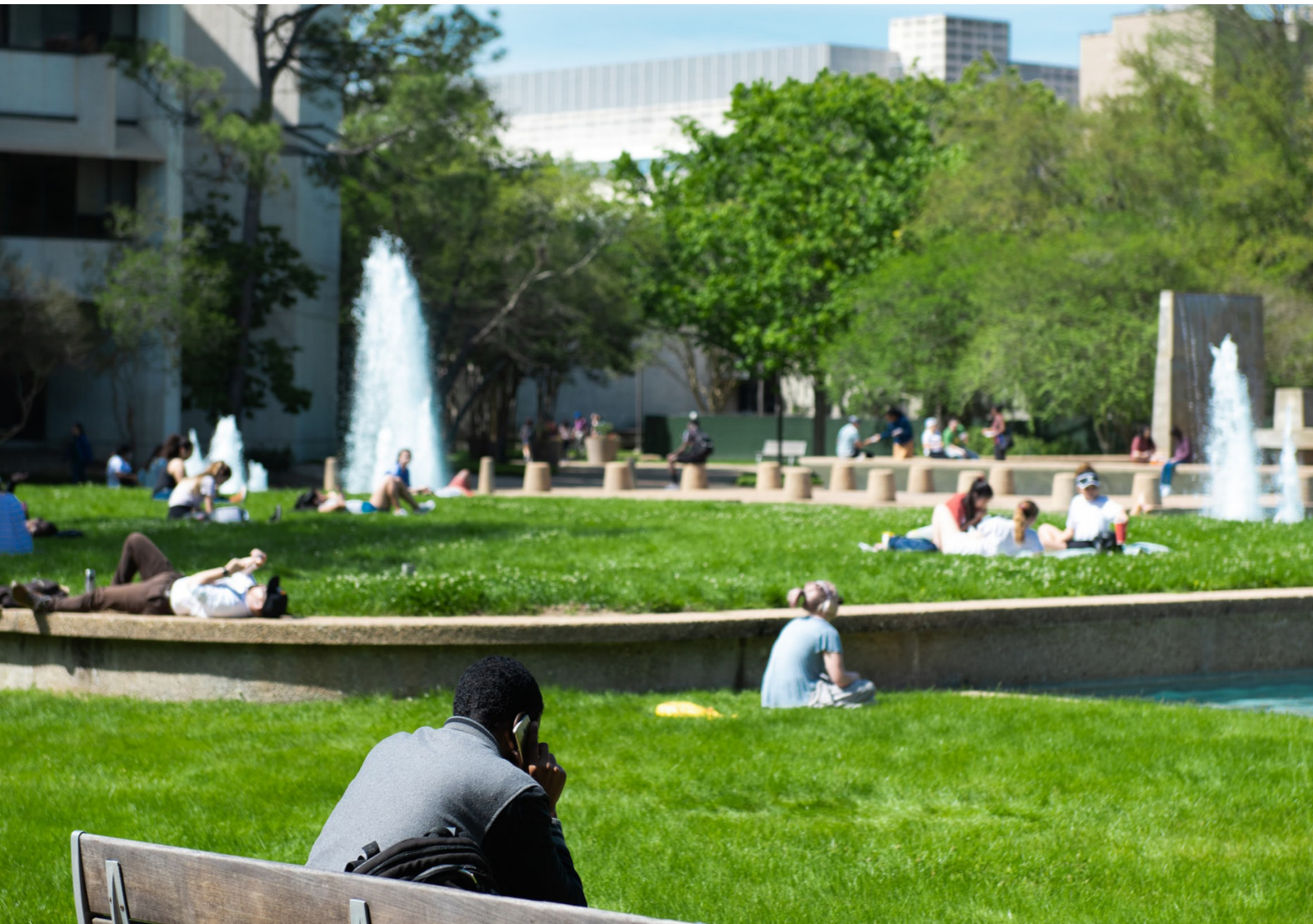
For Alex, his ventures in the working world were similar as his work/life balance adjusted to a new way of working that transitioned from commuting and travelling to meetings to remaining at home with meetings often back-to-back. This had its own impact on working relationships, but it was notable that staff were naturally becoming proactive in their communications, showing a willingness to call each other to check in. As his practice adapted, it also innovated, turning weekly catch-up meetings into project presentations, and incorporating virtual CPDs and other events as a means of maintaining employee’s connections with one another and their sense of purpose. Flexible working hours replaced the concept of ‘core hours’, and the development of both social and professional virtual groups was an effective invitation to involvement from staff.

The longer story of Alex’s journey can be found in *AT Journal issue 140* which I recommend reading, but the challenges involved were significant, particularly with gathering older evidence from a previous company to support his application to becoming Chartered.

So, here we stand at the end of 2021, finally meeting each other in person. Alex has his coveted Chartered Architectural Technologist status (MCIAT) with its protected title and is applying his accredited skills to the rapidly changing built environment, whilst I am eagerly re-joining my fellow students in the design and modelling studios learning how to achieve the same.

Alex and I were grateful for the opportunity, but particularly the warm reception we received, from Manipal Academy. It was inspiring to hear from the many other speakers and the lessons they had to teach and a huge congratulations to them for such a successful symposium. To have an AT educational programme recognised with accreditation by CIAT is a great accomplishment and it is clear that Manipal Academy are working hard to produce a skilled new generation of Chartered Architectural Technologists as well as contributing towards the wider global conversation on Architectural Technology. ■

“So, here we stand at the end of 2021, finally meeting each other in person. Alex has his coveted Chartered Architectural Technologist status (MCIAT) and is applying his accredited skills to the rapidly changing built environment, whilst I am eagerly re-joining my fellow students in the design and modelling studios learning how to achieve the same.”



Post-pandemic recovery: Relooking at public open spaces

Words by Arushi Malhotra, Assistant Professor & Program Coordinator, School of Design & Architecture, Manipal Academy of Higher Education

When COVID-19 hit, we, as designers, couldn't help but reflect on its entangled relationships with our cities. There were multiple urban and design innovations that these cities experienced as well as adapted to, to come to terms with the effects of the pandemic. This has been a period of forced experimentation induced by this global emergency and the various ruptures which the pandemic has imposed on us.ⁱ

The pandemic is continuously altering city experiences as well as its spaces. The very definition of a 'public space' is constantly evolving. Whereas historically it tended to largely mean streets, squares, and parks; it could now be considered to include both public and private owned spaces like car parks, the shared retail space in shopping centres/ malls/community centres, and even our very own terraces and balconies. The way in which these public spaces are being perceived and used has been changing too. Throughout the world people have replaced in-person visits with virtual meetings and home workouts.

Although it is now clear that virtual is not a long-term replacement for real human interaction and that humans don't cope well with isolation, the current crisis has reinforced the vital role that public places play in bringing people together and promoting wellbeing. It has highlighted the challenge of making our public spaces both safe and vibrant.

Historically, pandemics have been known to change the landscapes of our urban settlements. So far, the COVID-19 pandemic has brought some temporary modifications in public spaces like regulating density in terms of permissible numbers for footfall, widening of pavements, installation of sanitisers and wash basins at regular intervals to maintain sanitisation, installation of screens/partitions, and operational changes in how local markets and public spaces operate.

Apart from these, a lot of emphasis has been given to making our streets more 'livable' and 'interactive' through various design strategies. One of the most viable outcomes of this has been the shift towards increasing walkability. Beyond the positive impacts it has on our health, walking is the one thing we do on the streets that can ignite a sense of freedom and ownership. During the pandemic, hundreds of cities like Boston, London, Portland, and Vancouver have reconfigured their streets to accommodate more cyclists and pedestrians.ⁱⁱ Roadways and parking spaces have been reclaimed from vehicular use and put to other uses like recreation spaces, spill outs for cafe sitting and drive through for contactless delivery. This trend has swept not just large cities but also medium-sized ones.

There have also been discussions pointing towards the pandemic acting as an accelerating force that is transforming cities into a greener and more sustainable place to live. Milan was the first city to announce that the transformations it introduced during the pandemic such as the widening of pavements and 35km of new bicycle lanes would be made permanent. Many other cities are now proudly touting their ambitious plans.ⁱⁱ

Density has also become another extremely important catalyst in understanding public spaces. In the 1980s, the urbanist William Whyte argued that all public spaces have a "carrying capacity" – the maximum number of people that can be present in a given space without making us feel uncomfortable. Under our normal circumstances we tend to subconsciously observe the number of people around/with

us in a space. We all have our own intuitions about how many people are 'too many' and when we should avoid a particular place if it is beyond 'our personal threshold'. The pandemic however is likely changing our intuition about the carrying capacity of public spaces as well. Different innovations like using mobile GPS data to determine the footfall at a given place has started to shed light on the new dynamics of 'post-pandemic movement'. But such studies merely record the presence or absence of people in that space; they do not explain how they are using, responding or behaving in that space.ⁱⁱ

Faced with this new challenge, it is time we asked ourselves a series of questions about the future of cities: Will the changes that we currently encounter in our public space be made permanent or remain temporary? What other pandemic-driven changes in habits or use of public space will we see in the future? How will the integration of technology in such spaces change and re-shape the public realm?

It is still too early to have definitive answers but as urban planners/designers, we need to focus on creating healthy, inclusive, responsive spaces; not only as a response to this new demand, but because these urban oases indeed impact the overall well-being of its users. For now, there are more questions than answers, but the answers to these questions are sure to define and redefine our spaces. As cities continue to respond, the contours of these post-pandemic cities are continuously being altered, for better or for worse. It's time for us to ask what the implications of these responses on the current and future cities in this recovery phase are, and its prospects for a 'just recovery'.ⁱ

References

ⁱ Pauline McGuirk

ⁱⁱ Jordi Honey-Roses

“What other pandemic-driven changes in habits or use of public space will we see in the future?”



Sustainable railways through architectural design

Words by Martyn Riches ACIAT, Architectural Technologist, Network Rail Design Delivery

When we think of Railway Architecture, we instantly conjure thoughts of great stations like Kings Cross St Pancras, Bristol Temple Meads, Waterloo or more recent additions like London Bridge, World Trade Centre and Rotterdam Centraal Station. However, these iconic pieces of railway architecture are only the tip of the iceberg.

The railway infrastructure in the UK is a vastly complex and historical network made up of a multitude of buildings, sites and structures all interconnected between thousands of miles of track. But with government net zero targets and a look to improve sustainability across the network, the quest for a sustainable railway network is more pressing than ever. To give an insight into the many approaches I have taken as an internal architectural designer within Network Rail, I have focused on the three simple core principles of sustainability; Reduce, Reuse and Recycle. Although it might seem trivial, what with more complex principles like Passivhaus, Circular Economy, and BREEAM, it is still an affect approach to creating sustainable architecture.

Reduce

The conventional approach within architecture/construction is through reducing site waste, reducing emission, energy consumption or eliminating non-sustainable materials and even reducing embodied carbon. However, the most effective way of reduction starts at the very beginning of a project. From experience, many Network Rail sites, depots, offices and

Bringing together Depot staff and Office staff has never been done before within Network Rail, mainly due to safety issues. Edinburgh MDU has addressed these issues and allows both parts to work together, this is to ensure that everyone is home safe, every day.

everyone home safe every day

RE-LOCATION
Through re-locating all staff to the same area, it reduces the overall carbon footprint of individuals within Network Rail. This is due to staff not having to travel between different sites for meetings and supplies. Under all one roof, it allows the staff to collaborate much easier than ever before.

TEAM BUILDING
Having all staff under one roof, allows a strong 'Team' to be built within the workplace. This leads to positive performance from all staff.

Network Rail scheme to reduce staffing footprint

supporting infrastructure are extremely under utilised. This is due to poor organisation and slow historic site growth. Isolated 'silo' expansion has left many sites a patchwork quilt of temporary structures and adhoc extensions. However, every new project provides a new opportunity to rectify these issues. Rationalisation of a site or a building can reduce its overall footprint or eliminate the need for other assets. I believe our first step toward sustainability within the railway is to get more out of our existing infrastructure and reduce the need to build from new.

A recent award-winning project in Edinburgh perfectly illustrates the effectiveness of holistically re-organising a site to reduce the overall staffing footprint but also increase its efficiency. The scheme relocated several satellite depots into a single disused site and although an unlikely combination of office and track staff, the building's design successfully created a comfortable and cohesive environment for both.

Reuse

Much like the rest of the construction industry, the approach for reuse is centred around refurbishing, renovating and ultimately reusing our dilapidated infrastructure. With every project the first decision should be to evaluate what aspects are retained and what needs to be removed. As a first principle, I try to retain as much as possible but it also requires balancing against practicality, maintenance, and cost.

Our railway infrastructure is littered with great examples of historical railway architecture, much of which is not protected and therefore left in disrepair. This provides great opportunities to retain and refurbish these assets rather than demolishing for a modern alternative. Despite the cost, which is usually the major point of contention, it's far more sustainable to reuse what we have and preserve this piece of architectural history.

I was extremely fortunate to have been involved in such a project which reused a derelict grain store. The transformations turned the building into an office and welfare facility for track staff. We retained many of the existing building including the original brick façade, oak timber trusses, ornate metal work, agricultural style sliding doors and the signature wheel. Reuse of our old infrastructure not only provides a sustainable solution but perseveres examples of historical railway architecture for future generations.



Reusing a derelict grain store for a new office and welfare facility

Recycle

Much like 'Reduce', the conventional approach is to focus on utilising materials and systems that have a high recycled content. Whilst this is always a minimum standard for the specification stages on any project, Network Rail has a unique resource at its disposal. Across the network is an abundance of disused industrial components ready to be recycled. Cargo containers, cable drums, sleepers, storage cages and more can be found on your typical depot site. The limitations for recycling these items are up to your imagination and I always try to find innovative ways of upcycling. The less that leaves site as waste the greater the sustainable potential and even if redundant items leave site, many are refurbished and utilised on other sites.

Another key aspect of the Edinburgh scheme was its upcycling of redundant site components, particularly cargo containers. The derelict warehouse was formerly part of a local college; construction apprentices would train within the main warehouse and the single storey extension housed administration facilities. Several cargo containers had been left onsite – we upcycled these into meeting rooms, staircases, a large kitchen and covered cycle stores. Additionally, all office furniture and smaller storage units were relocated and refurbished from local depots. To this day, Edinburgh MDU stands within Network Rail as one of its most successful transformations, some of which is in part to the imagination of recycled items.

As the world slowly moves towards a more sustainable future, our railways are playing catchup to this modernisation. Increased passenger capacity and more trains place great demand on this already over capacity network. It is therefore crucial that future railway architecture encapsulates sustainability, as we tackle this demand. By simply using the approaches above as a starting point, we can start to create a more sustainable railway network for all. ■



Cargo containers upcycled into meeting rooms and offices

CPD...and how you can do it

Learning doesn't stop when you've completed your studies. Find out more about how you can continue your professional development.



Continuing Professional Development (CPD), in the minds of many, often conjures up images of having to attend a paid for course or seminar and being talked at. Not only is this a drain on time and resources, but how sustainable is it to find the right events, book your space and re-arrange your schedule accordingly several times throughout the year to meet CIAT's annual requirement¹ of a minimum of 35 hours?

CPD is not intended to be an add-on to an already busy workload; it is meant to develop your skills and help you perform better in your current role or enable you to get to the next level of your career.

Paid for courses/seminars are just a few of the ways in which you can develop yourself professionally, and in most cases you can direct your own learning and development to suit your ambitions. Best of all, the majority of these activities don't require much, if any financial investment on your part.

Activities that can count towards your annual CPD requirements include:

■ Research

If you are having to look into specific materials or techniques for a project that you or your practice is working on, this counts as CPD. The key is to keep track and log the time you spent researching. This can be done on your own CPD record that can be accessed within the 'My CIAT' area of the website.

■ Online

COVID-19 disrupted everyone's routine, and providers that

offered face-to-face CPD before have now moved to hosting these sessions on platforms like Zoom, MS Teams and so forth.

All members and affiliates have access to Technology Network, which is a directory of members and affiliates willing to give guidance to other members and affiliates. Its main aim is to put members and affiliates with experience in different areas in touch with each other for guidance and support. Some Architectural Technology professionals who work in isolation benefit from contact with others in their field, as do newly qualified members experiencing teething problems.

AT Weekly is another online resource that can keep you up-to-date with relevant information relating to the built environment, as well as the Institute's activity nationally and internationally.

The AT CPD Register lists a range of learning opportunities that have been assessed by CIAT and deemed professionally beneficial to Architectural Technology professionals. Similarly, Designing Buildings Wiki can also help you when researching products or methods for your projects. If you learn something new it is developing you professionally.

■ Professional qualifications

There are several benefits to progressing your membership; Chartered status in particular, is a mark of an individual's commitment to upholding professional standards. Some professional qualifications can also denote a specialism within a particular area.

These include:

Chartered Architectural Technologist, MCIAT²

Becoming a Chartered Architectural Technologist does not happen overnight, but you can build steps into your professional development plan to help you obtain this status.

If you don't have much practical experience, you could refer to the Professional Standards Framework and speak to your employer about gaining experience in the areas in which you need to develop, mapped to our standards. Keep a record of this experience as this will save you a lot of time when you are in a position to complete the application process to become a Chartered Member.

For those of you that are closer to submitting, do not forget that attending the MCIAT workshops offered by the Membership Department also count as CPD, as you will be given advice as to how best structure your application form and portfolio. If necessary, you can use the Mentor Match Me service to be mentored by a Chartered Member prior to submitting your application form, or before sitting your interview.

Chartered Environmentalist³

Chartered Architectural Technologists who have specialised in environmental issues may choose to 'badge' their competence by becoming a Chartered Environmentalist (CEnv). This qualification demonstrates your commitment to environmental best practice and a high degree of expertise within the sector.

Reflecting on your experience to date, and deciding how you want to continue evolving your skills within this area count towards your CPD hours as does undergoing the application process to become recognised.

Being registered as a Chartered Environmentalist sets you apart from others working in this field. It establishes proven knowledge, experience and commitment to professional standards, and enhances employability.

The application process consists of submitting a written application which requires you to address the competency statements by demonstrating how you have developed the breadth of knowledge through your work and engaged in sustainable management of the environment. This is then followed by a professional interview, carried out by CEnv assessors.

Conservation⁴

The Institute runs a register for Conservation professionals which is available for Chartered Architectural Technologists wishing to demonstrate that they are competent in the conservation of historical buildings and their surroundings. You have a choice being assessed as either a CIAT-Accredited Conservationist or a CIAT-Recognised Conservationist.

CIAT-Accredited Conservationists are conservation practitioners that take the lead in managing renovations, restorations and play an important part in preserving and conserving the heritage of buildings for future generations.

They are recognised by grant/fund aided bodies such as Historic England, Historic Scotland, Northern Ireland Environment Agency, Cadw (Welsh Government historic environment service) and the Heritage Lottery fund. CIAT-Accredited Conservationists are also eligible to undertake work as a Quinquennial Inspector.

CIAT-Recognised Conservationists on the other hand are those that have the appropriate knowledge and skills but who do not practise in conservation and instead have demonstrated their competence through the use of case studies.

As part of the application process for either option, you will be assessed and accredited against a set of competences in the area of conservation followed by a professional interview.

Researching, applying and/or sharing these techniques on projects or with colleagues counts as CPD, as does the process of being recognised for your knowledge and expertise in this area.

■ Engaging with the Institute

CIAT would not be in the strong position that it is in without the continued support of its valued members and affiliates. Therefore, any time that you dedicate towards CIAT activity counts towards your CPD hours. This involvement includes, but is not limited to:

- Being a part of the local Region/Centre Committee or aspirATion;
- Sitting on any Group, Committee, Taskforce, Board, or Panel;
- Providing views on a consultation;
- Submitting articles to *AT Journal*, *aspirATion magazine*; and/or
- Representing the Institute at meetings or events.

As you can see, there are plenty of opportunities to learn and achieve the minimum 35 hours of CPD, and please remember, the 35 hours are across a twelve-month period. Sometimes discussions with a colleague or mentor can inform or inspire you on how to progress with current and future projects, and can be far more productive and beneficial to your career than an impersonal course or seminar.

For further information as to what constitutes as CPD, please contact the Education Department on education@ciat.global. ■

¹ All members and affiliates (excluding student members) are required to undertake a minimum of 35 hours CPD every year as stated in the Code of Conduct.

² For more information on how to become a Chartered Architectural Technologist, visit the website or contact membership@ciat.global.

³ For more information on how to become a Chartered Environmentalist, visit the website.

⁴ For more information on how to become an Accredited Conservationist, visit the website.

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Value and benefits:

- Opportunity to promote their affiliation with the Institute using the approved terminology of 'CIAT affiliate'.
- Opportunity to be engaged and involved with the Institute and be part of the AT community.
- Access to Region, Centre and aspirATion events.
- Access to knowledge, training and CPD via the AT Academy.
- AT Journal subscription.
- Informative updates related to Architectural Technology via Institute communications
- Access to resources via My CIAT website

Interested in joining?

Please email membership@ciat.global
for an application pack

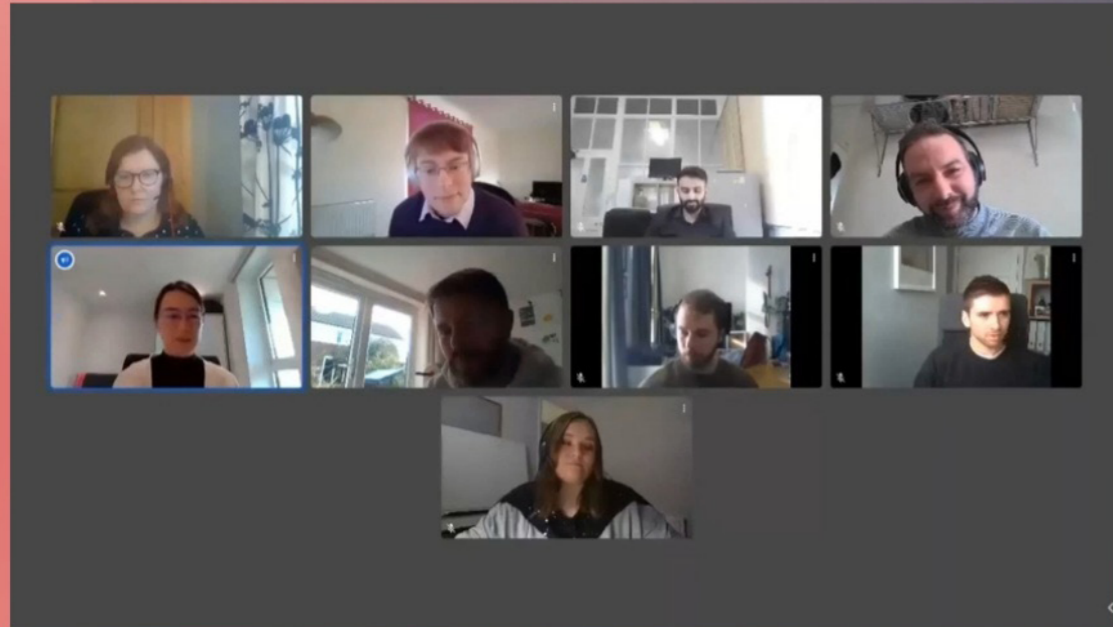
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aspirATion at COP26

Words by Tim Danson, co-Chair for aspirATion South East Region



aspirATion’s Alex Judd MCIAT and Tim Danson joined a panel event whose aim it was to discuss what we need to do now to empower young people seeking to become the climate-aware built environment professionals of the future. These events were part of the Build Better Now virtual exhibition and events series held by the COP26 Built Environment Virtual Pavilion. Tim shares his experience of the discussion and some of their insights.

Alex and I co-Chair aspirATion South East where we represent young and early career Architectural Technologists living and studying in the South East of England, seeking to become Chartered Architectural Technologists. It was our pleasure to have been invited to attend the panel and personally it was gratifying to see that a big part of COP26 was to highlight the built environment’s role in acting as a contributory cause of the climate and ecological crises and recognising its role in designing and engineering the solutions – two things that are the bread and butter of the Chartered Architectural Technologist that we all aspire to become.

I am a ‘mature’ enough student to have grown up watching

the *Captain Planet and the Planeteers* cartoon series in the 90s; an effort to educate a generation of kids on something that we have now known about for decades by virtue of my current age. I cannot pretend to have looked at the prospect of COP26 with anything other than cynicism – the same cynicism that would ruin my memory of Captain Planet should I rewatch it now sadly. Indeed, many of the headlines and comments from the sidelines supported the sense of cynicism, for we have been listening to flowery words and promises for the several decades that we have been aware of the problem.

I signed up to an AT degree programme because I wanted to

be part of the solution to the greatest challenge humanity has yet to face. I feel that there is no standing on the sidelines hoping someone else will save us and that the more of us that share this sentiment the better our chances of success. I know for certain that many of aspirATion’s members feel this way when speaking to fellow students and early career ATs. So, what better way to remove that sense of cynicism than by meeting with colleagues from other professions who also feel the same way to describe the challenges we collectively face and what we think we need to overcome them? Attending the panel were representatives from a variety of professions and stakeholder bodies including the Chartered Institution of Highways and Transportation (CHIT), the Institution of Civil Engineers (ICE), National Infrastructure Commission (NIC), Transport for London (TFL), and the Royal Town Planning Institute (RTPI).

The first consensus was both the most obvious and perhaps the most difficult to achieve – providing better frameworks that enables collaboration between professions as we apply our knowledge and skills. This can be translated into much of what is already being taught and being recognised by professional Chartered bodies such as CIAT and incorporated into accredited curriculums; the need for us as professionals to develop the communication skills required to exchange ideas effectively and to be competent with the digital tools and processes, such as BIM and digital twins, that are growing in use and enable collaboration. More broadly, there was a need for a strategic oversight governed by a holistic understanding of the wider system of cross-professional collaborations, enabling better insights and responses to developments affecting or being affected by that system.

There was also a consensus towards more nature-based design solutions, making use of materials that capture carbon rather than release it, as well as better design consideration towards whole life use, including re-use of materials. The ‘inertia’ of the construction industry was acknowledged and the insight from engineers at the panel was to be bolder with our material use, and as designers to push this harder with clients while we wait for regulations to adapt to the same.

The same logic is expanded towards rethinking what infrastructure is, asking ourselves whether we do need to build or rebuild as opposed to making adaptations that are low intervention where appropriate.

As we look to the future, a useful warning was made to all

of us and that is to be ready to quickly adapt what we are doing by looking towards what changes are likely to be coming from government, as new performance metrics are implemented towards carbon reductions, ecological gain, and energy usage.

We have all seen the rise of activism from young people and the panel drew attention to this; perhaps the worthiest points of all: we have a generation of teenagers and young adults desperately passionate to help solve the problems out of a need for survival. Those are not words anybody should relish saying, but they do represent our hope. STEM subjects have never been more important and with a growing skills shortage there is an absolute need to direct the energy and enthusiasm of young people into the professions that can produce the solutions needed, ever improving and refining our understanding and ability to manipulate the environment around us in a sustainable and productive way.

“There was also a consensus towards more nature-based design solutions, making use of materials that capture carbon rather than release it, as well as better design consideration towards whole life use, including re-use of materials.”

So, was I still cynical? Thankfully no. Whilst the solutions shown by Captain Planet seemed obvious, I’ve come to recognise the truth is that we have been working to overcome these problems since I was a child myself and that the solutions needed were complex, reflecting a more multifaceted understanding than a several decades old 25 minute cartoon could convey. Living in the future (2021 rather than 1991) we’re catching up to the scale of the

solutions required and finally starting to describe something achievable. I look forward to COP27 and will be busy doing what I need to do to make sure I can play my part. ■





Paralympic Gold triumph for Chartered Architectural Technologist

Words by Corstorphine & Wright

Great Britain secured its first ever Paralympic medal in Wheelchair Rugby this summer, after beating the USA 54-49 in Tokyo, and Corstorphine & Wright's Chartered Architectural Technologist, James Roberts MCIAT was the top scorer of the game, scoring 24 tries.

From an early age, James has always been a keen sportsman competing in rugby and squash teams for many years. Shortly after completing his first year at Coventry University, he contracted bacterial meningitis. After three years in hospital, which saw the amputation of both his legs, in 2010 James returned to Coventry University to complete his degree, gaining a First Class Honours in Architectural Design Technology.

It was during his stay in hospital that a nurse introduced him to the sport of Wheelchair Rugby. Upon returning to university, Wheelchair Rugby became a big part of James' life, and it was not long before he was picked for the GB development squad.

James spent the next three years playing on both sides of the Atlantic, playing with Phoenix Heat in the US championship and London Wheelchair Rugby Club in the British and European leagues. It is this very team spirit to which James

also brings to his role at Corstorphine & Wright as Senior Architectural Technologist.

In his own words, James stated: "What I love about architecture and Wheelchair Rugby, is that I am part of a team in both worlds, although my roles are very different in the two, there are similarities in both disciplines; I am working with people to achieve something greater than any of us could achieve on our own."

Group Director, Jeff Downes added: "James has something special, and he truly is an inspirational colleague, who richly deserves the Gold medal he won in Tokyo. We admire and respect his fantastic achievements and I am so pleased he continues to be part of the Corstorphine & Wright team. James is a testament to hard work, juggling the challenges of architecture and rugby, and always striving to be better in both."

James is currently working on a new scheme which will see the transformation of the former Bargate Shopping Centre, as it opens up and celebrates some of Southampton's richest historical assets.

The almost £100 million investment into the city will see the redundant 1980s shopping centre demolished and the site transformed into a vibrant quarter, delivering a residential-led scheme with retail at lower street-facing levels.

The Bargate Quarter will deliver over 500 new build-to-rent apartments, including townhouses, all set across thirteen blocks of accommodation.

James is also currently working on a planning application for a new trade and retail park at the coastal town of Herne Bay, which will bring many new businesses to the area and a boost to the economy, as well as the Magniac Building, at Colworth Park, home to Unilever's scientific research. This is the redesign of existing ground floor spaces, providing specialist laboratories, offices, and meeting spaces.

James was also recently part of a team who completed a shell only development at a Marks & Spencer store in Maidstone, assisting on the project from planning through to completion which involved project information management and the coordination of sub consultants on the development.



Marks & Spencer store in Maidstone, a project James worked on

James added: "Training for the Paralympics was intense both at home and when we entered the training camps, but it was worth it to come back with the gold under our belts." Defeating the USA in the final gave GB its first gold in a team sport in the Games' 61-year history and the first for a European nation in the sport.

An outstanding achievement for a determined and focused, yet gracious young man who has a very successful career ahead of him. ■



Great Britain Wheelchair Rugby team with their Gold medals



AT Awards 2022 open on 1 February

The AT Awards open for submissions on 1 February 2022 for the following Awards:

- Excellence in Architectural Technology
- Student Awards for Excellence in Architectural Technology
- Chartered Architectural Technologist of the Year
- Emerging Talent in the Technology of Architecture
- Gold Award

Full details and application forms will be on the website.

The AT Awards are recognised as the premier accolades that demonstrate outstanding achievement in Architectural Technology globally and celebrate the technology of architecture. The event this year was held on 21 October and was hosted by the President, Eddie Weir and Matt Allwright. Details can be found in the AT Awards section on our website.

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