

+ B I M

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+ B I R M I N G H A M

EVENT PROGRAMME

april 20  
**20  
22**



## VICTORIA FARROW

Victoria is an Associate Professor in Architecture with responsibilities in Marketing and Recruitment and Course Director of the BA (Honours) Architecture course at Birmingham School of Architecture and Design (BSOAD). Victoria Farrow is a qualified Architect and chartered with the ARB following the completion of her studies at the University of Nottingham. She has worked in practice, both as the director of her own architectural practice and also as an employee of practices in Nottingham and Hull, working in a variety of different sectors (residential, commercial, education, healthcare). She has also worked within the field of facilities management, BIM, occupancy planning, architectural visualisation and interior design. Victoria is incredibly passionate about architectural education and it is this that led her into teaching in 2008 where she began working as an academic at the University of Lincoln and Nottingham Trent University. During her time as an academic, Victoria has developed networks with organisations working in USA, and South Africa, which have provided her with the opportunity to both teach a number of times in the USA and also collaborate on numerous international projects and research activities. In 2011, Victoria helped to co-found the aae (association of architectural educators) and in 2013, Victoria hosted the inaugural aae conference at NTU to formally announce the association of architectural educators and the aae journal, Charrette, for which she is a peer reviewer. This event was attended by over 40 different countries around the world. Victoria continues to support the aae via the conference committee, journal committee, as treasurer and events director as well as presenting research at the conferences. Through the aae, Victoria has continued to work to support the improvement and development of architectural education in the UK. She has set up the aae and Vectorworks scholarship programme, which provides free software to schools of architecture in the UK and continues to develop strategies to enhance learning for her students. The BIM in Birmingham network of events would be an example of this. In 2014, Victoria moved to join Birmingham City University in the role as Course Director and Year 1 year leader. Having worked for more than 10 years delivering teaching and learning within the undergraduate years and postgraduate programmes at various institutions, Victoria is very experienced in her discipline. She has taught within higher education in architecture, interior architecture, theatre design, architectural technology, BIM, CAD and digital architecture and a number of other specialist areas.

Welcome to the 5th international BIM in Birmingham event, hosted at Birmingham City University.

BIM in Birmingham commenced with a local event in 2016 to engage practitioners and students in discussions and learning about Building Information Modelling. The aim has been to establish a network of BIM specialists and practitioners, opening the doors to experts and those looking to gain greater experience in BIM, providing host a forum for debates and discussions.

In 2017 the event expanded and in 2018 we began to welcome guests and speakers from around the world, providing the opportunity for international exchanges. The 2019 event proved incredibly successful and as such, our network has grown to over 2000 followers, Partners, sponsors and supporters. As an event, BIM in Birmingham has engaged with a series of collaborative partners, organisations and sponsors and we have benefited from a range of practices and guests who have kindly supported the growth and development of the event year on year. We would like to thank these parties for their efforts and enthusiasm and for assisting in the development of the BIM in Birmingham network. We also welcome interest from any potential partners, speakers or sponsors for the future. If you are interested then please do get in touch with Victoria Farrow for further details on Victoria.farrow@bcu.ac.uk.

For our April 2022 event, we have an exciting line up of guest speakers. We hope you enjoy the day!

-Victoria Farrow

**Email:** victoria.farrow@bcu.ac.uk

**Instagram:** @bcu\_baarch  
@biminbirmingham

**Twitter:** @vfarow16  
@bimbirmingham



WELCOME BACK!



### STEFAN FRATILA

Stefan is an architectural technician based at BIMcrowd, an international practice, which is focused on building design within the digital environment. BIMcrowd operate across a number of countries including New Zealand and Japan. Stefan has experience working across various sectors and in different time zones, which has enabled him to not only build a range of experience but also be flexible in his working patterns.

A passionate designer, Stefan completed his BA architecture degree and masters in architecture at BCU in 2021. Achieving both RIBA part 1 and 2 has enabled Stefan to secure a range of consulting work, including 3D visualisation. He has also worked in practice locally in Birmingham, at Choral studio.

Stefan is the co-chair of the event, BIM in Birmingham. This is an annual, global conference, which has developed an international reach. As co chair of this audience, Stefan has created links across multiple industries to build his own connections and continues to work and support the development of the BIM in Birmingham network.

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## EVENT PARTNERS

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## BIRMINGHAM SCHOOL OF ARCHITECTURE & DESIGN



### ABOUT: Birmingham School of Architecture & Design

Birmingham School of Architecture & Design is a diverse and interdisciplinary design community exploring the designed environments through the scales. Founded in 1908 and located at the heart of our rapidly changing city, the School hosts courses including Design for Future Living, Interior Architecture & Design, Product & Furniture Design, Architecture, Landscape Architecture, Urban Design, Design Management, Design & Visualisation and Conservation of the Historic Environment.



**ABOUT:** The Experimental Sustainability Studio

The Experimental Sustainability Studio (ESS) at Birmingham School of Architecture & Design brings together staff and students to explore innovative and experimental approaches to sustainability within our School, Faculty, City and Region. The ESS is both a series of interdisciplinary 'pop up' teaching and activism events, and a design think tank embedded in our design studio culture. Through design challenges, theoretical debate, and technological exploration, it aims to enable students to build the critical awareness and depth of knowledge necessary to challenge 'business as usual' and create radical change. The project has involved over 450 students and staff in online cross-School and wider faculty events exploring individual and collective responses to climate action. The ESS was a finalist in the UK Green Gown Awards 2021 and has been instrumental in placing sustainability at the heart of the School's ethos.

**EXPERIMENTAL  
SUSTAINABILITY STUDIO**



**ABOUT:** BA(Hons) Design for Future Living

BA(Hons) Design for Future Living aims to develop exciting and innovative design thinking, questioning preconceptions about how society lives now and into the future. Developed in collaboration with TV architect George Clarke's Ministry of Building, Innovation and Education (MOBIE), the course places students at the forefront of the next generation of designers tackling the design and delivery of new homes. The course prepares a new model of creative, skilled and disruptive designer with radical understanding of how living is changing, the impact of digital technologies and knowledge of innovative methods construction, ready to break new ground through an interdisciplinary, collaborative approach to designing the places we live.

**DESIGN FOR FUTURE  
LIVING**



<b>9:50</b>	<b>Welcome!</b> BSOAD, Mat Jones, Victoria Farrow, Jemma Browne				<b>C192 MAIN LECTURE THEATRE</b>
<b>10:50</b>	Alfonso Mondero Fellow - Heatherwick Studio				<b>C192 MAIN LECTURE THEATRE</b>
		<b>THE HIVE</b>	<b>C283</b>	<b>C284</b>	<b>C285</b>
			BIM + Climate Crisis	BIM + Covid Crisis	Share a project with us!
<b>11:25</b>		Jamie Alonso Candau Nonica	Tom Boyd BPR	Mohammad Mayouf BCU	Lewis Cullinane Hydrock
<b>11:50</b>		Dr. Melanie Robinson BIM Academy	Luka Stefanovic Vectorworks	Richard Black RSHP	Alex Plenty Ridge
<b>12:15</b>		Ivan Pajares Sanchez Modelical	Alberto Fernandez Gonzalez UCL	Tony Fitzpatrick BIMcrowd	Nick Leach Sir Robert Mcalpine
<b>12:40</b>		Andrew Ensslen/John Kelly/Max Callaghan HOK/Balfour Beatty/ WSP	James Yeomans GHA	Rhys Lewis & James Lawrence Revitzo	Anthony Harte BIM Technologies
<b>13:05</b>				Michael Hudson Turner & Townsend	
<b>13:15</b>	<b>DISCUSSION</b>				
<b>14:00</b>	<b>LUNCH</b>				
<b>14:55</b>	Harry Ibbs & Shahrzad Fedeidouni - Genster				<b>MAIN LECTURE THEATRE</b>
<b>15:30</b>		Panel Discussion Maber		Marzia Bolpagni MACE	Rob Jackson Bond Bryan
<b>15:55</b>				Katarina Ollikainen Vectorworks	Laura Gonzalez & Alberto Liesa Foster & Partners
<b>16:20</b>				Bierina Celniku & Dr Fang Xu Foster + Partners	Sorin Tatu & Jan Direckx Genster
<b>16:30</b>	<b>DISCUSSION</b>				
<b>17:35</b>	Olly Thomas - BIG				<b>C192 MAIN LECTURE THEATRE</b>

BIM  
# IN  
# BIRMINGHAM

SPECIAL GUESTS

## JAIME ALONSO CANDAU



### ABOUT:

Director at Nonica.io



Jaime graduated with Master in Architecture in Valencia University of Technology (Spain) in 2017. From 2017 to 2020, he combined his job as architect with advanced visual scripting and programming. The difficulties of sharing and accessing BIM automation scripts led Jaime and Blanca to launch Nonica.io in 2020 and program their first Autodesk Revit Add-In from scratch. Nonica.io is an Add-In that simplifies access and deployment of Dynamo automation scripts at scale. Since January 2021, Blanca and Jaime are Autodesk Authorized Developers and develop Dynamo scripts and custom Add-Ins available in Autodesk App Store. Jaime is established in the Netherlands leading Nonica.io expansion.

**TALK OVERVIEW:** Coding without code. BIM Visual Programming

The aim of the presentation is twofold: to present the wide range of applications that Dynamo have with in Revit and bring real

examples of Dynamo scripts carried out at Nonica.

Firstly, the potential applications of visual programming (i. e. Autodesk Dynamo) as automation and design tool would be broken down and introduced with selection of sample scripts (e.g. 4D simulation, clash detection, data management and parametric modelling scripts). What to do when you are stuck in Dynamo, next learning steps or recommended Dynamo packages will be just a few of the tips and tricks given during the presentation.

Finally, the presentation will conclude with a short exploration on how Dynamo scripts can be easily added and executed from Revit burrons with NonicaTab but also how to overcome extensive setup to share Dynamo scripts.

## DR. MOHAMMAD MAYOUF



### ABOUT:

Senior Lecturer in Digital Built Environment at BCU



**BIRMINGHAM CITY  
UNIVERSITY**

Dr. Mohammad Mayouf is a Senior Lecturer in Digital Built Environment and the Course Leader for MSc Digital Construction and MSc Building Surveying with Facilities Management at Birmingham City University. Mohammad completed his Ph.D in improving the delivery of Building Performance through the use of Building Information Modelling (BIM) from the United Kingdom. Since 2015, Mohammad has been one of the major drivers of the digital agenda across the Built Environment courses at Birmingham City University. His expertise also include the use of a variety of BIM-based software applications across the whole lifecycle of a construction project. Mohammad is also a committee at the UK BIM Alliance (West Midlands) where his focus is to promote Industry-University initiatives to improve processes and boost collaboration opportunities.

**TALK OVERVIEW:** BIM and AI to support the Construction Process: A Data/information driven Approach Tools.

Over the years, industry and academia have continually been looking into techniques and approaches that support effective and efficient mechanisms in managing the construction process. Following a decade after the introduction of BIM, many digitally underlined processes and applications have allowed better means to manage information, effective coordination and communication between stakeholders, and earlier detection of issues and complexities. However, the construction process, in its own entirety, includes many aspects that operationally vary in terms of complexities and issues. Although the availability and accessibility of IT-based solutions is considerably high, yet during unprecedented situations such as COVID-19, the construction was deemed as one of the sectors that majorly suffered, and handling of many construction processes was inadequate and many cases failed. Hence, it was sought that the issue is not necessarily application-related, but indeed process-related. Recently, with the emergence of artificial intelligence (AI) across different aspects in the construction sector has provided further opportunities for automation, and more importantly, informed decision-making. This talk aims to shed the light on synthesising BIM with artificial intelligence focusing on data to support more robust mechanisms toward construction process. The focus will be on data produced during advanced stages in the design, and data recorded during early and later stages of the construction process. The talk will discuss different types of analytics that can be applied using data from BIM, and will extend to cover the potential application of AI in informing the construction process.

## JOHN KELLY



### ABOUT:

Senior Design Manager

**Balfour Beatty**

John has 17 years experience in the construction industry with Balfour Beatty managing large, complex schemes across multiple sectors including healthcare, higher education, laboratory's and residential ranging from £25-300M. As senior design manager John has overall responsibility of managing the design process working in both the pre-construction space as well as seeing projects through to a conclusion on site. In addition to managing the multi-disciplinary consultant team, John manages external stakeholders including Clients, Building Control and leads engagement with the Planning Authorities. John joined Balfour Beatty as a site engineer and fulfilled a number of site management roles before arriving in design management in 2012.

## ANDREW ENSSLEN



### ABOUT:

Senior Design Professional



A graduate of McGill University in Montréal, Andrew has over 15 years of UK experience with expertise in delivering sustainable research and educational facilities. Andrew joined HOK in 2011 after working on a number of award-winning schools and has been a key contributor to the design and construction of numerous British and international schools and research facilities. He was involved in the design of the recently opened University of Glasgow Advanced Research Centre, and is currently the architectural design lead on the Cardiff University Translational Research Hub, the flagship project of the South Wales Tech Cluster, and on the Rosalind Franklin Laboratory, one of the world's largest diagnostic facilities. He has recently been responsible for the Richmond Education & Enterprise Campus bringing together high-quality learning and enterprise as part of a new educational model on a shared campus along with an associated residential development, and One Elephant Park, a landmark tower in Central London.

## MAX CALLAGHAN



### ABOUT:

Digital Construction Consultant



As Regional Lead for WSP's Digital Services team in the Midlands, it is Max's responsibility to manage the delivery of UK and International Digital Construction Projects, and drive digital innovation within WSP and the built environment. Max joined WSP's multi award-winning Digital Services team in 2020, having started his career as an architectural technologist before specialising in digital construction. At WSP, Max utilises his experienced to helping and supporting our clients, internal and external teams to face the challenges & demands of projects through a Digital Approach. With notable examples including the application of the Building Safety Bill, Fire Safety, and creating Digital Twins/Threads. The ISO19650 series forms the backbone for our delivery of construction projects in a way that reduces risk, ensures reliable structured information, delivering value to our clients throughout the entirety of an asset's lifecycle. WSP is an BSI certified ISO 19650 professional services company with offices and projects across the UK and internationally.

**TALK OVERVIEW:** Rosalind Franklin Laboratory: Outpacing a pandemic

In late 2020, an urgent moonshot testing program was launched as a key pillar of the UK Government's response to the pandemic. The challenge: to deliver a world-class facility, one of the world's largest diagnostic facilities, able to process hundreds of thousands of COVID-19 tests daily, all to be operational within months.

The Rosalind Franklin Laboratory, located in Leamington Spa, began operation within 4 months of construction despite being built during the peak of the pandemic and supply chain crises. A showcase for British Innovation, MACE - together with design partners WSP and HOK; technical partners Hoare Lea and GMP; and construction by Balfour Beatty and Balfour Beatty Kilpatrick - delivered an ultra-high throughput, sustainable, biosafe laboratory at an unprecedented pace.

Presented by key members of the project team, this presentation gives insight into how this challenge was met. Highlights include: Agile working with leading subject matter experts and close industry engagement enabled rapid briefing and client stakeholder engagement.

Digital methodologies and tools were used to facilitate coordinated design and construction, and deliver value.

Innovation was embraced through Modern Methods of Construction: offsite, off-the-shelf, volumetric and kit of parts approaches.

Sustainable outcomes are embedded in the design response to reduce operational & embodied carbon; enhance health, well-being, & biodiversity; and ensure sustainable water-use, transport, life-cycle costs and social value. For the team members involved, this has been a once-in-a-lifetime, extraordinary experience – given the scale, timeframe, & the intensity of collaboration across all the organisations and stakeholders.

## DR MELANIE ROBINSON



### ABOUT:

Senior Project Manager at BIM Academy

**bimacademy**

Melanie is a Senior Project Manager at BIM Academy, specialising in Building Information Modelling (BIM) and information management according to ISO 19650. She manages several projects across multiple sectors within the UK and internationally and works closely with clients to develop bespoke digital strategies for project and asset management. Melanie's interests include change management, standardisation, and digital collaboration, and also acts as Regional Lead for Newcastle-upon-Tyne for Women in BIM. Melanie holds a PhD from Edinburgh Napier University, which looked into the micro-level factors to an effective macro-level diffusion of BIM, including the gap between perceived and actual efficacy of BIM understanding and skills.

**TALK OVERVIEW:** Share a project with us.

Most often the application of BIM on a project is associated with commercial buildings or infrastructural, however the building

design for healthcare facilities is critical and complex in nature and this is the reason why development of healthcare facility, requires BIM intervention. Today healthcare has advanced and hospital buildings require facilities for complete patient care and wellbeing. As the demands on advanced healthcare buildings are growing in size and complexity, so too is the need for the use of BIM in the design and construction of healthcare assets and estates. In this talk, Melanie will introduce to the Scottish Futures Trust's Standard Information Management Plan and ISO 19650 principles which it has aligned to all estate management. Melanie will look at the Ardrossan Community Campus project and highlight areas where digital processes have accelerated the pace of the project and created greater collaboration across the project team. Plus what this learning points have come out of this project such as clearly structured handover information, setting out what is required from the delivery teams early, and the need for the project information managers to work closely with the client to understand their needs fully.

## ANTHONY HARTE



### ABOUT:

BIM Technologies (Europe)

**BIMTechnologies**

BIM Technologies was born out of a belief in the potential of data and analysis to change the way we plan, design, deliver and manage buildings, leading to better outcomes. Since 2010, we have been a pioneer of digital construction, developing methods and tools to deliver quality, data-driven building models. Joining in 2018, Anthony has previously worked in Architectural Practice, held a 3-year Secondment position in Asda's Technical Standards Dept and has been a key part of #BIM4Retail delivering his first BIM projects for Asda 14 years ago...

**TALK OVERVIEW:** BIM + Climate Change

An overview of The Hickman building, which is GPE's (Great Portland Estate) smartest building yet, being the first building globally to achieve the prestigious SmartScore 'Platinum' rating.

We'll be discussing how BIM Technologies worked alongside GPE to connect existing building systems & data together within Twinview where FM Teams can view all property data on a single dashboard, to optimise building energy performance, reduce operational costs, lower carbon usage, and even improves user experience and business outcomes.

## KATARINA OLLIKAINEN



### ABOUT:

Industry Specialist - landscape at Vectorworks



Katarina has under the last five years worked as Senior Designer for Ann Marie Powell Studio. During this time, she had the opportunity to develop the studios workflow and to introduce new ways of working with, and sharing, data in the design process. Her interest in systematic approaches to problems and workflows stems from an earlier life where she developed and wrote manuals for parachute equipment. Katarina is now the Landscape Industry Specialist at Vectorworks UK and in her new role she's involved in the continuous work on BIM implementation. Her main focus is on collaboration and workflows how can we exchange information in the most effective way with all parties involved, and how can we use all this when we communicate with clients? It's all about people.

### TALK OVERVIEW:

As the landscape industry more and more are expected to work in a BIM workflow, the demand on practitioners' knowledge

increases as well. The BIM framework is largely centred on building structures, so adapting to this when designing landscapes can be challenging. However, the landscape industry has much to gain from engaging in this and we want to look at the advantages of working within this framework and how you can see it as an aid instead of a problem.

Traditionally, the landscape aspect of a project comes in at the tail end of the planning process and thus must adapt to already established structures. With the increasing need for a correctly planned SuDS design, sustainability and green infrastructure planning, the need for landscape's early inclusion in a project becomes more and more imperative.

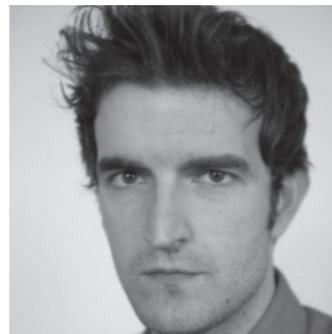
We will explore the similarities and differences between a BIM and traditional workflow and highlight the advantages of implementing BIM.

The session will explore how to collaborate with all parties and how to ensure your project slots seamlessly into a federated model, independent of what software other collaborators are using. As geolocation is a large part of a successful collaboration, we'll go through the requirements for project setup, what information to expect from the Lead Appointed party and how to adjust to different approaches in file setup.

Vectorworks has a full set of Georeferencing tools, with a live link to Esri and its map system. We'll look at how you can utilise this to ensure your project is correctly positioned in the real world. We'll also look at how to use this for the analysis/feasibility stage of a project.

We'll also cover data handling within Vectorworks and see how you can set up mapping of native data to ifc PropertySets, especially with the expanded scope of Geographical elements in ifc 4.0. We'll also explore how to utilise Data Sheets to aid in adding the correct data at the correct stage of the project and how to connect and view your model with Solibri Direct.

## TOM BOYD



### ABOUT:

Associate Director at BPR



Tom is an Associate Director at BPR specialising in rail and rail-related regeneration for clients such as TfL, Network Rail, Local Authorities such as Waltham Forest and Medway Council, and Contractors such as Morgan Sindall Group.

Within the sector of transit-oriented regeneration, Tom recently prepared a masterplan for three sites owned by Waltham Forest in Lea Bridge comprising 300 homes, a 1,000m<sup>2</sup> community hub and commercial space, centred around a new station entrance. Similarly in Medway, Tom is currently supporting the L.A. with the development of a new station at the heart of a development funded by the Housing Infrastructure Fund. By carefully considering the areas beyond the station's lease boundary, the design safeguards a generous area of high quality public realm at the heart of the new community: a 'shop window' for Hoo.

development of a new station at the heart of a development funded by the Housing Infrastructure Fund. By carefully considering the areas beyond the station's lease boundary, the design safeguards a generous area of high quality public realm at the heart of the new community: a 'shop window' for Hoo.

Tom has recently completed a secondment to TfL to support the upgrade of the oldest four London Underground lines and is currently supporting Morgan Sindall with the refurbishment of Borough Station and Ladbroke Grove, and working for Stantec (on behalf of Taziker) on the refurbishment of Brunel's Grade I listed Bristol Temple Meads station.

Tom's presentation will focus on how the design team have utilised the full range of tools offered through BIM. Topics include hosting in CDEs to improve co-ordination, the preparation of animations for the client to more easily consider the designs and importantly with the drive towards Net Zero, a discussion around lifecycle analysis during concept design stages to reduce the carbon footprint of the new station proposals.

## ROB JACKSON



### ABOUT:

Director at Bond Bryan Digital Ltd



Rob Jackson Rob is a Director, ARB registered Architect and is the operational lead for the Bond Bryan Digital team. Rob's background is as a project architect, and he has worked on a range of education and advanced manufacturing projects before moving into his current role. His role for the past 5 years has been to lead and develop the Bond Bryan Digital brand and he has successfully delivered a number of high-profile information management commissions for some complex and challenging projects in both the public and private sectors. Rob has extensive knowledge of current industry BIM standards, processes and this has led to him developing our forward-thinking approach to information management. Acknowledged across the industry as a leading advocate of OpenBIM standards (including IFC and COBie), Rob regularly speaks at conferences both nationally and internationally, and co-authors our award-winning BIM Blog.

Bryan Digital Limited offers Information Management, Clash

Detection and Building Information Modelling Consultancy. Established in 2016 as a brand of Bond Bryan Architects, Bond Bryan Digital became a limited company in December 2021 and is now part of the BuildData group. The BuildData group currently includes the following brands: Zutec (Building Lifecycle Management Software), Createmaster (Operations and Maintenance Manuals) and Resi-Sense (Digital Home User Guides).

### TALK OVERVIEW: Database-driven information management

This is the story of Bond Bryan Digital's journey of developing information management resources from a traditional PDF/Excel approach to a smarter database approach using cloud-based solutions. The use of 'information management platforms' to support information requirements and information delivery will ensure information on construction projects becomes more robust, reliable, and reusable. The use of these platforms will also enable greater automation of processes and support improved validation of client's information requirements against consultants and contractor's deliverables.

## RICHARD BLACK



### ABOUT:

Associate at RSHP



Richard joined Roger Stirk Harbour + Partners (RSHP) in 2016 and was made a Senior Architect in 2019 and an Associate in 2021. Currently, he is the project architect on two high rise buildings: Shimen 1st Road Tower, a 186m mixed use office and retail development in the Jing' An district of central Shanghai, and 204 South 12 Street, a 32-story, mixed-use residential building in Philadelphia, USA. Richard has been involved across a wide range of design stages at RSHP, from initial concept design through to completion, including a campus building in Italy, and several office buildings in Shenzhen. He also played a key role in developing the detailed design of facade packages on two major residential projects in Shanghai. Prior to joining RSHP, Richard worked across a variety of sectors in the UK, focussing on complex site development projects with Transport for London. He was the lead architect for an office building in the City of London and was located on-site for a year, working closely with the contractor to deliver the building.

### TALK OVERVIEW: BIM as a Tool for Global Coordination

Working on projects abroad requires a high level of coordination between design disciplines to ensure that the team is fully collaborated and working toward a common goal. BIM provides a tool to facilitate this collaboration between teams of engineers and architects from around the globe.

Shimen 1st Road Tower is a 186m mixed use office and retail development in the Jing' An district of central Shanghai. It sits above the intersection of three subway lines and is flanked by the historical Zhang Garden to one side and high-end retail and office developments to the other. The use of BIM on the project has enabled teams to come together from Asia, the UK, and the US to develop this complex scheme.

The building is integrated at B1 level to the concourses of the adjacent stations and provides a direct internal route for people to circulate directly from the station to the building above in an internal retail environment. The office tower, positioned above the retail, provides highly efficient floorplates which can be easily subdivided into a variety of tenancy sizes. A green roof garden at the top of the tower provides panoramic views across the city and adds to the sustainable architectural principles that are present throughout the building.

## IVAN PAJARES SANCHEZ



### ABOUT:

Senior BIM Specialist at Modelical



Senior BIM Specialist, Chartered Architect with 15+ year experience in project design and construction for both private and public clients. Iván has been involved with technology and architecture for all his academic and professional life, from the formative years with Zaha Hadid Architects and Salvador Pérez Arroyo Office to his own studio work on housing and office projects up til his latest involvements with Modelical like the National Museum of Qatar Museography (2017-2019) and the BIM consultancy for Hospital Dr. Sotero del Río design&build project in Santiago de Chile (2019-2020).

Iván is also a part time Professor at the School of Architecture of the Polytechnical university of Madrid, where he has been teaching Drawing to first year students for the past 10 years.

### TALK OVERVIEW:

Digitalizing construction, a prefab odyssey

In this session we will share our work helping a spanish construction 2.0 startup that strives to digitize the building process to deliver more sustainable and affordable buildings. We will give a comprehensive - but understandable - overview of a complex process that links design to manufacturing and assembly in an integrated way. We will do so by focusing on the builttech approach, where all the different aspects of the problem from design, costing, manufacture and assembly are integrated with digital tools and processes.

The real value of the digitalization process is the process itself, not the finished product.

For us Builttech implies that the heterogeneous information produced must be accesible and understandable to anyone involved, either architects, quantity surveyors, sales people, etc. This means that we need to work on how to shape data to enable the different uses that it demands.

## DR. MARZIA BOLPAGNI



### ABOUT:

Head of BIM International - Associate Director at MACE



Marzia works as Head of BIM International at Mace where she develops and implements digital construction solutions for public and private international clients in five international hubs. She holds a PhD in ICT and Smart Construction and she is passionate in filling the gap between industry and academia. She is glad to be a member of the BIMExcellence Initiative, Assistant Editor of the BIM Dictionary where she coordinates more than 140 volunteers worldwide, Ambassador of the UK BIMAlliance and Expert at the European Committee for Standardisation (CEN) TC 442 where she chairs a Task Group on information requirements standardisation (Level of Information Need), an evolution from the concept of "LOD". She is lead author of the Level of Information Need standard EN 17412-1, Chair of EC3 Modelling and Standards Committee, Honorary Lecturer at UCL The Bartlett School of Sustainable Construction and Visiting Professor at Northumbria University. She is also founder of Italians in Digital Transformation Uk, she loves sharing her knowledge with students and she is

often invited as keynote speaker at academic and industrial events. She received several awards for her activities including Young Engineer of the Year and the Sir George Macfarlane Medal as overall winner by the Royal Academy of Engineering, Emerging Professional of the Year, InspiringFifty 2021 and Woman of the Future in 2021.

**TALK OVERVIEW:** Industry 4.0 for the Built Environment: are you ready?

In this session you will discover the key topics and trends of Construction 4.0. The editor of the recent book "Industry 4.0 for the Built Environment" will present the skills needed to work in a digital environment looking beyond BIM: from blockchain to extended reality, mother methods of construction, reality capture, gamification as well as soft skills such as digital learderhip.

## MICHAEL HUDSON



### ABOUT:

Associate Director at Turner and Townsend



Michael is an architect with over 15 years of experience in digital strategy and project delivery. During that period, Michael has worked for major contractors, and public and private sector clients on some of the UK's most prestigious projects. Michael is a regular speaker at technology conferences and an experienced University lecturer. He has taught at numerous universities and is currently a guest lecturer at University of the Arts, Norwich. Michael collaborates with industry groups to help to develop the next generation of construction professionals. He is a member of UK BIM Alliance B555 group that authored the BS EN ISO19650 guidance documents. He founded the UK Dynamo User Group, which has several hundred members and regular events. He is also the T&T champion for the Connected places catapult: start-up discovery school.

**TALK OVERVIEW:** How Architects can lead multi-disciplinary teams to create digital twins?

When Turner & Townsend launched its global 2025 vision, it had 3 guiding purposes: Green, Inclusive and Productive. The business challenged all employees to seek out new ways to improve upon each of these 3 tropes through innovation and collaboration. For Mike, there was clearly an opportunity to create digital twins of Turner and Townsend's offices, so he set up a team of like-minded colleagues and delivery partners. Mike will present the first of the pilots, which was based at our Birmingham office. He will discuss the journey - which was rarely linear - from concept to completion and included Surveys collected using Matterport, Revit modelling and live data was collected using Synetic EnLink Zone sensors. O&M information was rationalised uploaded to a CDE, with both static and live data visualised on a web-hosted 3D model. This presentation will discuss the challenges the team had overcome, and the strategy for future pilots. The session will demonstrate how even simple sensor arrays can be arranged to provide compelling insights for existing building applications, improving operational efficiency and lowering carbon production.

## RHYS LEWIS



### ABOUT:

Director at Revizto



Rhys Lewis is a Director at Revizto and also the chair of the UK BIM Alliance Wales community. He has spent the last 15 years in the construction technology space, encouraging and helping the industry to create better experiences in design, construction and facilities management. A unique career that spans across both vendor and end-user has enabled Rhys to fully understand the core challenges the industry faces and then deliver innovative technology that directly addresses these pain points. Rhys is passionate about empowering project teams with solutions and ideas to improve collaboration.

**TALK OVERVIEW:** Revizto: a New Era for Clash Automation

Up until now, Revizto has been an Integrated Collaboration Platform which allows you to raise and communicate issues seamlessly with the wider project team, be it issues raised in the field, issues raised during design team meetings or issues raised

via third-party clash detection software. In this session we will show you the New Era of Clash Automation in Revizto. We will demonstrate how quick and easy it is for you to create clash tests directly within Revizto whilst at the same time grouping the results in a way that suits the team responsible for fixing them, how the project team can collaboratively review the results at the same time whilst immediately filtering them so they only see what is relevant. We will show you Revizto Clash Automation.

## JAMES YEOMANS



### ABOUT:

Associate, Head of Digital Systems and BIM at GHA



### TALK OVERVIEW: Ethical BIM

In a world engulfed in technology, with some reliance on consumerism, how can we adopt ethical methodologies that align with BIM objectives.

James joined GHA's Birmingham office in 2015 and was promoted to Associate, Head of Digital Systems and BIM in 2019.

His early experience was predominantly at the technical delivery stages of projects (including those listed here), working closely with contractors and delivery teams to realise concepts through to detailed design with particular emphasis on Revit and BIM methodologies.

Having been a member of the Project IT Board and assisting on systems and process initiatives across the company, he now leads in this area and manages digital systems and BIM across GHA, striving for robust and effective workflows.

## NICK LEACH



### ABOUT:

Head of Digital Construction

The logo for Sir Robert McAlpine, featuring the text 'Sir Robert McALPINE' in white, bold, sans-serif font, centered within a solid red rectangle.

### TALK OVERVIEW: Consistent Use of BIM & Digital Technology across an Organisation Pre and Post Pandemic

In this session you will hear about the BIM and digital journey Sir Robert McAlpine have been on; how they embedded this into a consistent strategy; how COVID-19 impacted the business and accelerated technology uptake and get an insight in to some of the initiatives and targets they have embarked on to improve how they operate as a business going forward.

Nick has over 22 years' experience working in the Construction industry and has specialised in Digital Construction and Building Information Modeling (BIM) for the past 14 years. Working for three large main Tier 1 contractors over the past 15 years on a variety of projects both in the UK and abroad at project level and at strategic level respectively. Nick has experience across a wide range of sectors ranging from Healthcare, Civil, Rail, Commercial, Education, Public and Residential. As Head of Digital Construction at Sir Robert McAlpine Nick is responsible for implementing and driving the integration of Digital Construction/BIM delivery nationally, ensuring adoption, consistency, and innovative ways of working, support the overall business strategy. Nick is chartered with the Chartered Institute of Building (CIOB) and the member of the British Standards Institution (BSI) ISO19650 practitioner scheme. He has represented and contributed to various industry Digital/BIM initiatives or groups such as the UK BIM Alliance, BSI and Build UK in driving the use of Digital and BIM across the UK.

## LUKA STEFANOVIC



### ABOUT:

Architectural Engineer at Vectorworks



VECTORWORKS

As Architectural Engineer, Luka has worked on a number of UK office and residential based projects of varying scales, taking on architectural and technical design across the design and construction stages of projects. He has also worked internationally on projects ranging from design competition entries, EXPO exhibition design and interior design.

With a longstanding passion for sustainable architecture, Luka has been involved in research projects on energy modelling which resulted in conference presentations, webinars, university projects and participation in buildingSMART International Expert Panel for Information Delivery Manual (IDM) Development for Building Energy Modelling (BEM). Interest in Embodied Carbon has led him to create a calculator for assessment of carbon emissions directly from a BIM model.

Luka is UK Architecture Industry Specialist at Vectorworks,

responsible for all matters architectural. He has frequent meetings with practices, consulting or providing CPDs, optimising workflows for users and providing feedback to the software development team.

### TALK OVERVIEW:

As targets for achieving Net Zero carbon in both construction and operation are set by governments and legislative bodies, the need to reduce embodied carbon emissions becomes more critical, as does the requirement for intelligent digital tools to assess it. Embodied carbon represents the total sum of emissions required to produce goods (such as a building material) or activities (such as transporting those materials to the construction site), hence the emissions are considered to be 'embodied' in the product.

Attendees will be invited to explore how to incorporate whole life cycle carbon assessment workflows into BIM projects from early stage feasibility studies to developed technical design stages. Basic and advanced concepts will be introduced, along with industry standard guidance and data sources. The session will seek to argue why reducing embodied carbon emissions becomes critical, as does the need for tools to assess it.

Presentation will introduce Vectorworks Embodied Carbon Calculator (VECC) is the in-built tool for Embodied Carbon Calculation in Vectorworks that provides an integrated modelling and carbon assessment workflow, allowing designers to quickly measure the impact of their Material and Product choices on the carbon footprint of their project.

## ALFONSO MONEDERO



### ABOUT:

BIM Specialist at Heatherwick Studio

Heatherwick studio

Alfonso is an architect leading BIM implementation at the award-winning, London-based multi-discipline Heatherwick Studio. Having worked as Project Architect and Head of Design in a leading practice in Chile, Alfonso decided to move to a more technical role after observing how technology skills, or the lack of them, influence and limit design creativity and affect project outcome. With experience working internationally in Spain, India, Chile and UK, Alfonso started collaborating with Heatherwick studio in 2015 as a BIM Consultant, and then moved to Woods Bagot (London) to work as Design Technology ManagerIn.

In 2018 he re-joined Heatherwick Studio to continue BIM implementation. Since then the studio has achieved a digital transformation in the BIM department becoming one of the industry leaders in its sector. His goal is to embed BIM in the design phase without limiting or hindering the design process.

**TALK OVERVIEW:** Connecting BIM and Design: A new digital design workflow

The design process and BIM implementation are often disconnected and don't develop in parallel, making BIM tedious and meaning that full adoption is delayed until stage 3. Break the silos and create a seamless workflow between BIM and design teams from the start of the project, and delay your design freeze.

## HARRY IBBS



### ABOUT:

Director

**Gensler**

Harry is a globally experienced Design Technology Leader, Architect, Urban Designer with 16+ years professional experience with 8yrs proven executive-level experience, with a business mind set and a keen interest for emerging markets. He has vast experience specialising in Enterprise resource planning, business and project information managing, infrastructure projects, master planning and change management business implementation. He has worked across leading entities such as Gensler, Zaha Hadid and Mace, working across design disciplines of the Design, Construction and Built environment; gaining experience within Multi-discipline Design company, to largest Design Agency as well as, avant-garde Architect Studio. As creatives, we are driven by our memories, experiences, senses, relationships, and imaginations to design the cities of the future. The craft of design is founded on these human superpowers and they can't be replicated by technology. That's why we stand to gain significantly by combining our human potential with machine-cognition to elevate ourselves to a much higher-value in the world projects.

## SHAHRZAD FEREIDOUNI



### ABOUT:

Regional Design Technology  
Manager at Gensler

**Gensler**

Shahrzad is a Regional Design Technology Manager at Gensler Europe. Leading the VIZ pillar, She is interested in science and technology and believes through the incorporation and implementation of these two in design processes, we can work on solving complex, pressing issues much faster and more effectively. Graduated from The Bartlett UCL - Advanced Architectural Design program with project distinction and being competent in a diverse range of software has allowed Shahrzad to successfully convey ideas across scales. Having experimented with a range of computational and VIZ subjects within Architectural Design such as complex geometry, visualization, architectural game development, and more, she works on visualizing these complex methodologies for different users. Shahrzad also contributes to experimenting with and developing these tools further for both front and back-end. Currently at Gensler, she is focused on developing virtual environments through game engines and real-time visualization tools.

**TALK OVERVIEW:** Recent technological advancements in the AECO industry and how Gensler have been tackling these challenges?

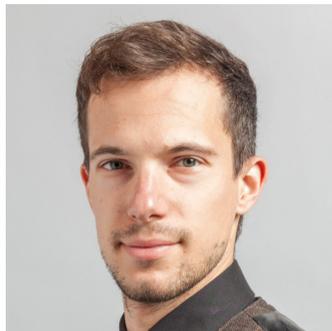
### VISUALIZATION PILLAR

The industry is finding itself in a digital revolution with emphasis on real-time 3D and game engines. We are seeing a lot of interest in this area, with the rise of the metaverse and creating virtual spaces and experiences, but it's important that we, as architects, ask the right questions; how do we leverage these tools and make them relevant in architectural context, in the way people use spaces?

Game engines have become data aggregators allowing us to rapidly test ideas virtually without any limitation: from creating virtual environments and simulating real world scenarios, to rapid iteration and procedural content generation, to machine learning and more. The change that real-time has brought to architecture has allowed for the gap between modeling and visualizing to vanish. Subsequently, the closing of this gap has brought new opportunities for clients and designers, allowing us to not only visualize our designs, but also the surroundings and the data that goes with it; such as mobility, air pollution, solar comfort, and much more...

Having all this information in one space allows us not only have conversations about the data early on, but also taking the information and moving it down the pipeline – Therefore making better informed design decisions and bringing value to our clients early on, at rapid speed.

## JAN DIRECKX



### ABOUT:

Regional Design Technology Manager at Gensler

**Gensler**

Jan is an award-winning architect and engineer and leads the computational pillar within the Europe design technology region. His unique skillset combining architecture and technology allows him to drive a more integrated, performant and sustainable design methodology and execution. Jan graduated first of class as a Civil Engineer - Architect following studies in Belgium and Germany with an award-winning thesis on implementing performance tools during the design process in Revit. He received project distinction graduating from the Bartlett BPro programme. Jan qualified as an architect with distinction in 2018 and is a member of the ARB. He previously worked in the Specialist Modelling Group at Foster + Partners and was involved in the Stirling Prize winning Bloomberg Headquarters, the headquarters of Apple in California and the award-winning Martian Habitat. Jan lectures regularly at conferences and during workshops and presented at the Bartlett, ETH Zurich, TU Delt and RWTH Aachen and appeared on the BBC Sky At Night.

## SORIN TATU



### ABOUT:

Regional Design Technology Manager at Gensler

**Gensler**

A specialist in the computational BIM environment, Sorin has helped develop solutions for optimisation and automation across multiple large-scale projects. As one of Gensler's regional European Design Technology Managers, Sorin works across multiple practice areas within Gensler, contributing to many of the firm's most complex projects. Having worked previously for some of the world's largest architecture firms, he has amassed extensive experience providing computational design and management on global projects. Sorin's interests in Science and problem solving, along with his ability to work across multiple workstreams and custom solutions, lead to a holistic project approach that is systematic, efficient and innovative.

**TALK OVERVIEW:** Recent technological advancements in the AECO industry and how Gensler have been tackling these challenges?

### COMPUTATION PILLAR

Because of scale and the pace of design iterations, the urban design realm has only entered 3D-environments in the last decade, where they are mainly used for visualization and communication. This is in stark contrast with building design which is now commonly delivered in BIM environments, which integrate design workflows with data management and automation.

As urban scale developments keep increasing in size and the requirements for efficiency and sustainability become more and more stringent, the need to marry data and design in an urban context exists more than ever. Urban BIM enables planners to both create more informed and relevant designs as well as iterate and deliver them at a quicker pace, supported by automation and the power of data.

genTools is a set of computational utilities which have been custom created at Gensler to fulfil specific client needs by supercharging workflows in architectural and urban design teams. They take advantage of combining data with geometry to either allow a designer to create in a more informed way and/or speed up the design iteration process by automating tedious tasks.

Follow the journey of an urban BIM project where a new city is generated with the click of a button with constant feedback on critical metrics including the number of plots, GFA and BUA. As the brief and client feedback change, the design adapts to new requirements.

### BIM PILLAR

Automation and augmentation of tasks within the BIM environment has been constantly increasing in the last few years, not only through visual programming but as well as through add-ins. This increase has created a shared knowledge pool upon which users continue to push the limits of the software and help create new tools and workflows.

Building upon that Knowledge pool, we, at Gensler, are developing tools for Revit that aim to become enhanced workflows for future projects, while also standardizing deliverables and eliminating repetitive work. Our tools aim to be as user friendly as possible while providing flexibility and stability to the newly created workflows.

genDataSheets is one such tool, in development here at Gensler, that aims to provide a framework for creating specialized room datasheets for different types of projects.

In order to provide our clients the exact information they require, the add-in provides specific parameters for Labs, Offices and other functions that you can choose from to use in the project, and it creates sheets and adds views to those sheets reducing the amount of time needed for production while reducing risk due to human error.

## OLIVER THOMAS



### ABOUT:

Design Technology Manager  
at BIG



Oliver Thomas is a British architect currently working as the Design Technology Manager of BIG London. Oliver has 9 years' experience working in various roles as an architect, specializing in design, technology and fabrication for firms such as Aedas, BIG and Front. Having studied in the UK and gone on to become a fully qualified British architect, Oliver went on to work in London, Hong Kong and New York. Oliver is also the founder of Archi-Tech Network - an online platform that aims to foster collaboration, discussion and education resources around the intersection of Architecture and Technology.

### TALK OVERVIEW: BIG Design Technology

Oliver Thomas, BIG's Design Technology Manager in London will talk through the tools and technologies used within the unique design process at BIG. A breakdown of both of the technologies we use as architects to design, but also a look at how emerging technologies is creating new opportunities and new perspectives

on the design itself. What is BIM, Computational Design and AR/VR and how are they actually used in practice? How will emerging technologies such as 3D printing, automation of electric vehicles and even the metaverse spill over into architecture and shape the built environment around us?

## LEWIS CULLINANE



### ABOUT:

National BIM Manager



Lewis is responsible for the implementation of Building Information Modelling (BIM) on all projects within the Building Performance Engineering (M&E) group in Hydrock. He has been vital to developing the standards and protocols in BIM and Revit within the group and has applied his knowledge to help deliver the best value for clients. Lewis also chairs the Hydrock BIM Steering group, is a member of the CIBSE BIM Steering Group & UK BIM Alliance Wales Team. Lewis has acquired a wide range of skills and expertise from working on local multi-disciplinary projects such as the 21st Century Schools, BBC Central Square development, Penarth Learning Community and St Fagan's redevelopment. He has also used this experience whilst working on large scale national and international projects such as the UCLH Proton Beam Therapy Centre in London, Abu Dhabi International Airport and Equinix Data Center in Dubai.

### TALK OVERVIEW: Share a project with us

I would be presenting on how I have implemented a BIM on a personal project, through my allotment. I have recently gained an allotment in my local village during the pandemic and the allotment was in a state of disrepair. I set out to improve it and then I thought - how can I figure out where to sow everything I want to sow, what months are best to harvest, how can I track the soil in different areas of the allotment, track progress of what I have done but not just through photos and how I can check the temperature/humidity in the greenhouse. This uses Revit and also uses Dynamo to create a grid for where to sow what is needed to be sown. The idea (not yet implemented) would be to create and track temperature/humidity using IoT sensors, and exemplify the basic concept of DfMA using the vegetable beds and greenhouse.

## BLERINA CELNIKU



### ABOUT:

BIM Coordinator Sustainability at Foster + Partner

**Foster + Partners**

Blerina is a qualified architect in UK and Italy with a PhD in Environmental Design, focused on environmental rating systems & sustainability strategies for educational buildings. As an architect she has worked in several countries – including Italy, Spain, Albania – on cultural, residential & large-scale healthcare facilities projects developed in BIM. Blerina joined Foster + Partners BIM team three years ago and currently is working as a BIM Coordinator for the sustainability team. She combines her experience & passion for BIM and sustainability in the development of guidelines, workflows and tools that facilitate the use of BIM for life cycle carbon analysis. Using BIM, Blerina is actively involved in enriching the database of life cycle carbon assessments for Foster + Partners projects

### TALK OVERVIEW: BIM & Sustainable Design

The widespread adoption of BIM has opened up new possibilities for integrated and sustainable design. Foster + Partners are leveraging BIM and game engines to automate Life Cycle Carbon calculations and visualise the results in an engaging online platform

## FANG XU



### ABOUT:

Associate at Foster + Partners

**Foster + Partners**

Dr. Fang Xu is currently an Associate Sustainability Designer/Analyst at Foster + Partners. He is primarily focused on person-environment relationship research, computational design, and real-time design technologies. He advocates a holistic, transactional research philosophy considering an ecological relationship between humans and the built environment as the foundation for describing and understanding various person-environment phenomena. Dr. Fang adopts mixed methods research, including the active development of real-time simulation methods for environmental design evaluation. Using Unreal Engine, he is currently leading the development of real-time, interactive apps for simulating, visualizing, and assessing sustainability design performance in a wide range of design stages.

## LAURA GONZALEZ



### ABOUT:

Associate at Foster + Partners

**Foster + Partners**

Laura is a qualified architect with 8 years of experience in the design and construction industry, and has been working at Foster + Partners for almost 4 years as a BIM Coordinator. During this time, she supported the delivery of the Whiteleys Redevelopment, a Grade II Listed building which combines a residential complex with retail space and hotel services, working with a team of three BIM coordinators and more than 40 architects. Before joining Foster + Partners, Laura built over four years of experience working at international practices, where she was involved in multidisciplinary and large-scale construction projects such as a Qatar 2022 World Cup Stadium, Riyadh Metro and Dubai Expo 2020, all of which were delivered in BIM. Laura has a strong interest in architecture, sustainable building design, and BIM methodology as a process for and coordination, automation and parametric design.

### TALK OVERVIEW: BIM & Sustainable Design

The challenges and solutions adopted in the coordination and development process for a Grade II Listed building. Transitioning from Microstation to BIM. Benefits, advantages, and challenges of the coordination process with the contractor in early stages and the integration between the design BIM models, the construction models and the existing listed elements.

## ALBERTO LIESA



### ABOUT:

Associate at Foster + Partners

**Foster + Partners**

Alberto has over nine years of experience in the AEC industry, working in various roles as an architect across the globe, specializing in design and digital delivery for AECOM, Atkins & PLP Architects. He joined Foster + Partners in 2018 as a BIM Coordinator, supporting the delivery of the New Phnom Penh International Airport, a large-scale project where practice integrated design covers architecture, structure, MEP, lighting & landscape design. In 2019, Alberto was appointed as a BIM Lead, to manage a team of BIM Coordinators, working on international projects. Alberto often provides commercial support to define relevant BIM scope aligned to client's BIM contractual requirements, ensuring that projects are then developed and delivered accordingly. Prior to joining Foster + Partners, Alberto lived & practiced in Asia & Middle East, with exposure to range of different work environments & ways of thinking.

## ALEX PLENTY



### ABOUT:

Team Manager at Ridge & Partner's



Alex works within the information management space as a Team manager for Ridge and Partner's digital engineering discipline. Actively pursuing practical applications for BIM within the construction industry, Alex supports both end clients and contractors by defining, structuring, checking and delivering information on construction projects. As a passionate advocate for interoperability and openBIM, Alex is committed to delivering projects to open standards.

**TALK OVERVIEW:** One day all information requirements will look like this.

Benefits you might take-away from this session:

- Get to grips with EIRs in 30 minutes
- Less confusion and chaos on projects
- Understand what's needed and cut out what's not

We read loads of Exchange Information Requirements and BIM

Execution Plans that are giving BIM a bad name, they aren't giving value to the industry. We see a lot of lazy EIRs, where they just ask for COBie and BIM. How can we understand our need of information? We need to look at priorities, business objectives and processes which need data to support and enhance. We should be presenting these in a simple plain language way. How to write these requirements is often kept under wraps and as an industry we spend too much time complaining about what's bad, we don't talk about what's good!

Ridge and Partners have been defining information requirements on their projects differently. We have been producing cloud databases to replace the endless pdf and excel files typically seen on projects.

In this session we will cover how Ridge have been:

- Linking requirements to purposes and business objectives
- Defining assets
- Splitting structured and unstructured information
- Defining Level of Information Need
- Ensuring requirements are checkable

Whether you are a client, contractor, designer, or consultant; you require information to do your job. I'll present a real alternative to how this is typically done, a way to do this properly!

## ALBERTO FERNÁNDEZ GONZÁLEZ



### ABOUT:

Architect, Academic and Researcher



Alberto Fernandez Gonzalez is an Architect, Academic & Researcher of the University of Chile, Master in Architecture of University College London and RIBA Chartered Architect. His career has been developed between academia and professional practice, exploring the 'form' designed from the local perspective as a contribution to Global issues applying BIM, Generative Design and Digital Fabrication in different scales, internationally recognised by HOLCIM Award Next Generation, Archiprix International, Sunbrella Future of Shade, UIA La Biennale di Venezia and Evolo Skyscrapers, among others. He has been part of UCH since 2006, where he leads Design Studio 6 - Digital Integration and is tutor for Part 1 Research Seminal unit and Part 2 Graduation Projects design studio. His work has been published nationally and internationally, and his MPhil/PhD studies are funded by the Chilean Government, UCL, and UCH. Currently, he is a Digital Design Tutor at UCL The Bartlett School of Architectural Design, MSc Architecture and MArch AD as Skills Tutor. By 2020 he

started an advisory board member of Perspectives Journal from the same school. At the same time he is part of Rational Energy Architects, a research and practice collective working with the connection among Artificial Intelligence, Decentralised Solar Economy, BioDesign and Self-generated spaces.

**TALK OVERVIEW:** Towards an adaptive BIM

Towards an adaptive BIM is a research that is working with the link between cellular automation models and information models, understanding generative design not just as an opportunity to achieve a new aesthetic approach for our projects, it's also an opportunity to develop new levels of efficiency in our designs. In nature, we can find some examples of that design/construction logic, as a bottom-up application in contrast to a top-bottom classic approach, creating shapes that are complex but efficient at the same time, dealing with problems collaboratively with optimal use of available resources and a maximum performance related with shapes that are emerging as "collective designs" being the fruit of this collective interaction. These structures (as a repository of built information) continuously are optimising resources by the feedback action from the memory storage to a new action or movement, working as a predictive manual of probabilities instead of a rigid process of rules (deterministic). The ongoing results are fruit of the workflow between Processing, Rhino, Grasshopper, Archicad, Revit and Fusion 360, as dynamic creative framework, not limited by the use of one single platform, creating different outcomes in the whole process.

## TONY FITZPATRICK



### ABOUT:

Co-Founder of BIMcrowd



Tony Fitzpatrick is Head of BIM at AW2 Architects (Helsinki, Finland) and also co-founder and director of the bimcrowd, an international architectural and BIM outsourcing company. He is a Graphisoft Certified ArchiCAD BIM Manager with over 20 years experience in the digital design field. He has been involved with the design of many buildings throughout New Zealand, Japan and Finland ranging in size from residential renovations to hospitals. He has a wealth of knowledge on BIM processes and collaboration practices which he has used over the last 2 years to grow his own remote based architectural business.

### TALK OVERVIEW: Giving architects the freedom to design

Tony will share the story of how we have built the bimcrowd as a completely remote BIM practice with a team spread around the world, servicing clients on the other side of the world.

### TALK OVERVIEW: Giving architects the freedom to design

Born of an idea in late 2019 to generate some extra income on the side of our day time jobs in architecture, the bimcrowd has grown steadily throughout the Covid period as a completely virtual office serving a range of clients in New Zealand primarily with a dozen staff spread around the globe.

Starting out with the normal aspirations of an architectural practice to design homes for clients, we soon recognised there was a huge gap in the market for BIM specialists who could deliver outstanding BIM projects and solutions, so switched our focus to being a digital outsourcing partner to architects and designers.

In this presentation I will share with you our journey over the past 2 ½ years and how we have built a totally virtual practise serving a client base from home building companies to Architects throughout New Zealand (and soon the world). I will share with you the logistical hurdles we have had to overcome and how we manage to work smoothly as a team across borders and time-zones to deliver on our mission to give architects the freedom to design.

## JOSH CHRYSTAL



### ABOUT:

Head of BIM at MABER



As head of BIM for Maber, it is Josh's responsibility to implement and drive the integration of digital construction principles within the practice and across the industry.

A core part of this is ensuring that the ISO19650 series (UK BIM Framework) is applied effectively on construction projects; from quality assurance, 3D model authoring, clash detection and asset data production. As an experienced BIM Consultant, Josh ensures that clients and project stakeholders understand how BIM can benefit their projects. Information management principles provide effective design and construction processes but also with the use of smart data and digital twins, the ability to continue taking advantage of data into the operational phase.

Originally joining maber in 2014 as an architectural technologist, Josh has a broad range of industry relevant experience which is

reflected in pragmatic approach to delivering BIM. Starting with a personal interest, he has also been active in promoting VR/AR in the construction industry across various events in the UK and looks forward to its wider implementation in the industry. Maber is a leading AJ100 Architectural practice and BIM Consultant with offices and projects across the UK.

### TALK OVERVIEW:

1./ Digital Design: What steps need to be taken to ensure that sustainability factors, such as reducing embodied carbon, are considered at an early stage of every project. At planning, could there be a digital gateway check of material volumes to calculate embodied carbon against a baseline?

2./ Digital Construction: Does an industry standardized method of inputting product sustainability data within 3D models need to be developed? Could blockchain technology provide a 'golden thread' of data to ensure that the products used on site match the sustainability criteria of elements specified during the design?

3./ Digital Operation: Can digital twins take a lead role in reducing the operational carbon output of buildings? As an industry, how can we better inform clients that decisions around operation and maintenance, such as open source sensor data, need to be made early to allow them to be successfully incorporated into a true digital twin?

BIM  
# IN  
# BIRMINGHAM

TEAM BIM

## STUDENT

### WIKTORIA SARA PIOTROWSKA

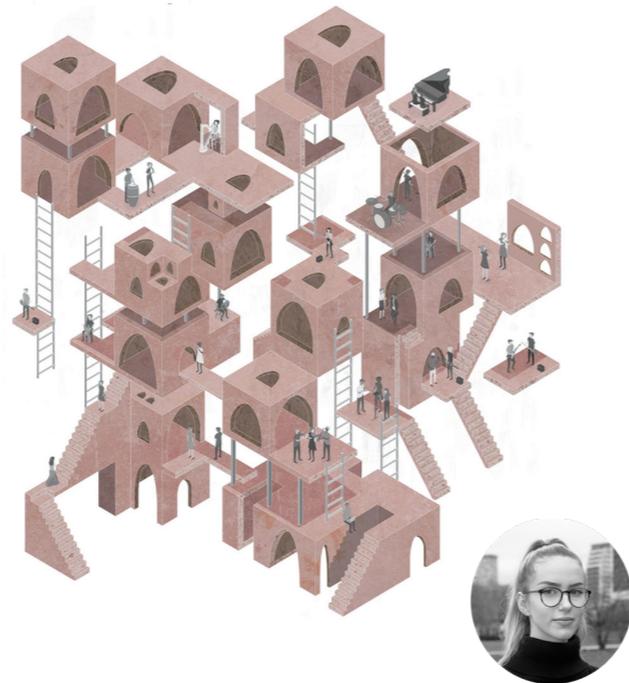
#### LINKEDIN:

Wiktorija Sara Piotrowska

#### INSTAGRAM:

@wik.dwg

Wiktorija is a MArch Architecture student with an experience in the residential sector. After completing her PART 1, she has worked in a practice specialising in specialist adaptations for people with disabilities, working on a range of projects across all RIBA stages. Her interests include the relationship between architecture, film and visual arts, which she explores throughout her design modules. Her research project focuses on exploration of the connections between static and dynamic images and emotion, and how people portray architecture in both – static and dynamic motion.



## STUDENT

### NICHOLAS MORRISON

#### LINKED IN:

Nicholas Morrison

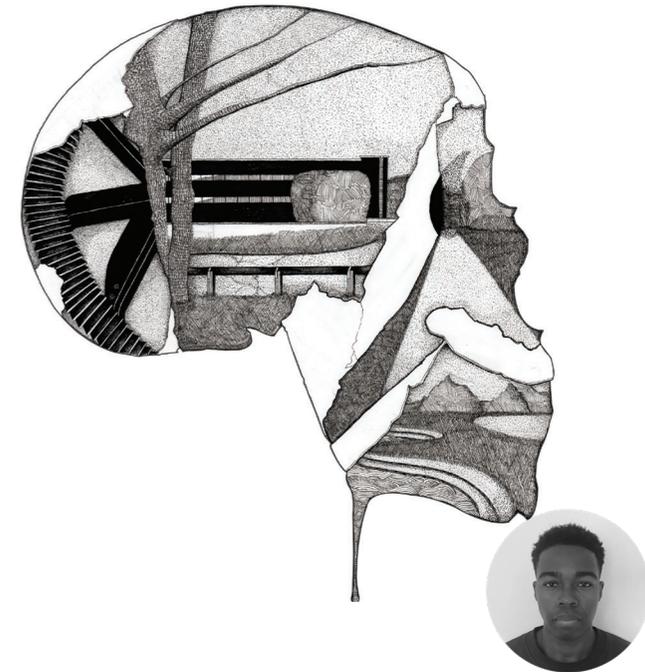
#### EMAIL:

nicholas.morrison@mail.bcu.ac.uk

#### INSTAGRAM:

@kolorjam

After my undergraduate studies at Northumbria University, I've had the opportunity to able to work in practices throughout the UK and Spain; allowing me to work on a range of projects from residential to commercial buildings, developing my skills in all RIBA stages. Currently I am studying as a part 2 student at Birmingham City University. I've always been fascinated with how visual arts can make an individual feel physically and emotionally; this thinking bring architecture forward instead of being a backdrop in daily life. Self-expression is key, it brings about a more diverse palette of architectural work. In practice, I hope to work with and learn from professionals who constantly test and push boundaries of expression through architecture, realising how much more is can be. Outside of my studies, I mostly enjoy practicing and engaging in other forms of art, encapsulating brief snippets of life and presenting them in abstract illustrations.



# STUDENT

## MOHAMMAD SHARIFI

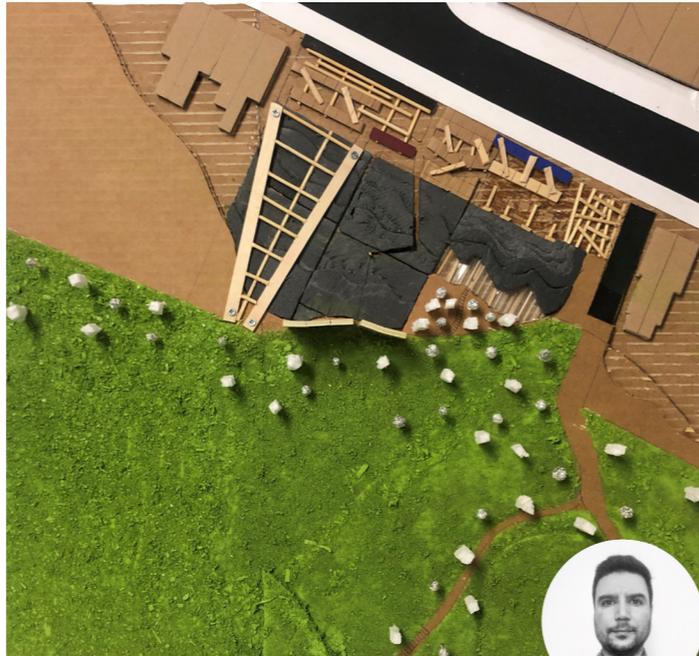
### LINKEDIN:

Mohammad Sharifi

### EMAIL:

Mohammad.sharifi@mail.bcu.ac.uk

Architecture fascinates me. With a desire to explore how science & technology can improve the performance of buildings both socially and environmentally, architecture has brought out the dichotomy of my personality, allowing me to engage creatively and scientifically with the aesthetic and functional aspects of design. I will never stay away or be shy about designing a complex building which will enable me to consider solving problems in more depth and accuracy, which is one of my strengths in the thinking process. As an architecture student, I am always keen to learn to take any learning opportunities upon different mediums, techniques and programs in and out of university. It will allow me to expand my knowledge and workability on various design strategies. I am always pursuing creativity and experimentation that I have never experienced before and taking a risk to bring out my best. I am so proud that I can make complicated decisions in crucial moments when I need them.



# STUDENT

## NATALIE SANDERS

### LINKED IN:

Natalie Sanders

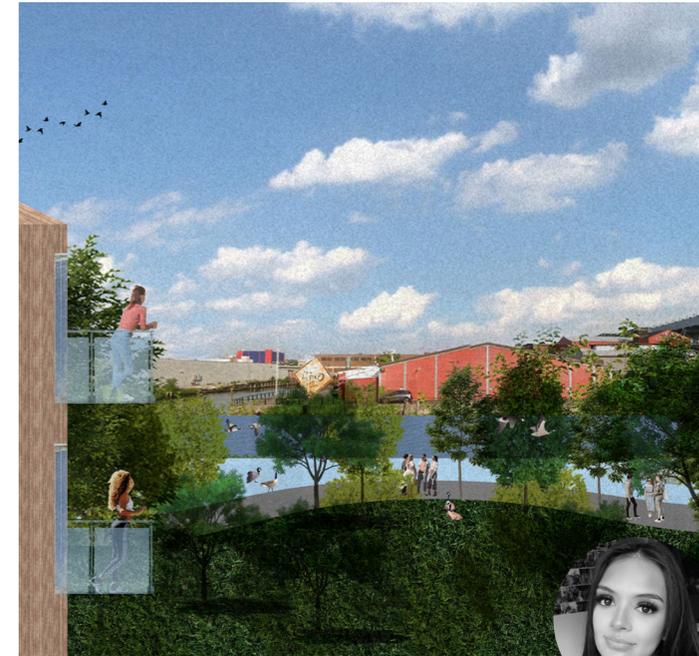
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From a young age I always knew that I was creative and wanted to pursue a career in the design world. Currently being a third year Architecture student at BCU, I have allowed myself to grow as a designer to experiment and understand which areas in Architecture and Design I am passionate about, and wish to pursue in the next stages of my career. My fascinations consist of the interaction people have through spaces, creating a different experience and purpose for everyone. Working towards environmental changes now and in the future creates an open dialogue between designers, which is why I think it's important to be empower others. Being a woman in the design world today has made me realise the inequality we still face in today's generation, and why we should not let it determine how successful women are as designers.



# STUDENT

## RAMEETHA HUSSAIN

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Rameetha Hussain

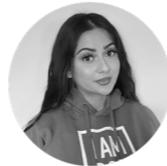
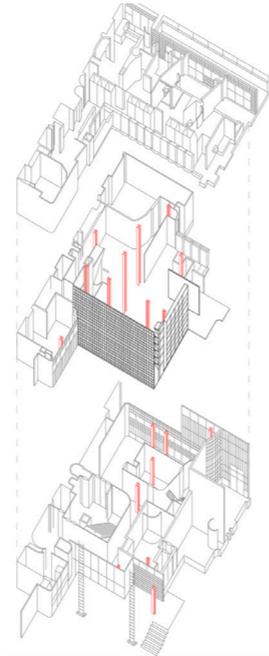
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@berrycute\_uk

Born and bred in Birmingham, I'm a British-Bangladeshi BA Architecture graduate from BCU and I'm currently studying Master of Architecture (RIBA part II). I have great appreciation for detailed design and the conservation of historic buildings and believe they should be delicately adapted so they are lastingly used and appreciated.

Studying at BCU has encouraged my passion for architectural heritage as I've been recently involved in a large scale conservation project, which has widened my knowledge in this sector. I never stop learning; every historic building has a story to tell, a rich history or a long hidden detail which can be so rewarding to discover.

During the first lockdown, I decided to take the plunge and start up a small cakes and bakes business alongside my twin sister. Our business @berrycute\_uk occupies our spare time and has been recognised by BCU through the BSEEN programme. Our bakes are on sale today, let us know what you think!



# STUDENT

## MEHTAAB RASHAD

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Seeing Design as an Escape - led me on a fantastic journey, demonstrating how design influences us and how we impact design, which I explored in Graphic Design, Engineering, and Architecture. I've always been intrigued by how objects are designed? how they work? what the design means to us? and what we mean to the design? Which led me to pursue a career that blurs the line between problem solving and design which was architecture. The message the architecture sends forth is as important as how it is viewed as a structure or a shelter. I believe it's important the concept that makes the building should be communicated to the audience at the first glance, humans' interaction with building is as important as the aesthetics. The sites interface with the building is important, buildings can't just sit in a site, it must blur the line, emerge in the site well.



# STUDENT

## MISBAH UR REHMAN

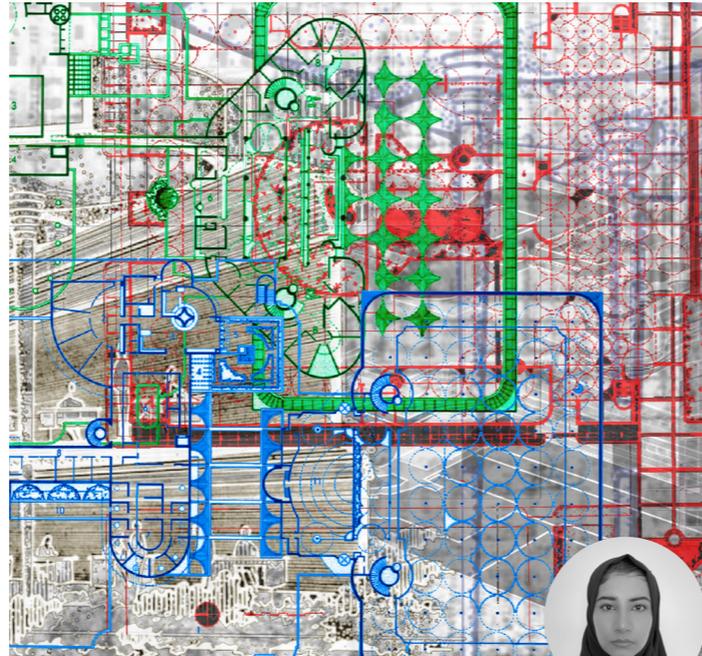
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Misbah ur Rehman

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With a strong artistic background, I always wanted to pursue a career in design. Creating, designing, and crafting with hands have been my strong suits. With those skills, taking an architectural route was an impulse decision made to challenge my abilities further. A big leap from taking my hobbies and shaping a career out of it. As a third-year architect student, I am content with my decision. The process of 2D work into 3D with added factor of humane use of those spaces amused me. The immense possibilities within the design strategies of spaces are amusing. Through I might be headed towards a career that challenges all my skills, strengths, and weakness, which makes it exciting to look forward to.



# STUDENT

## MICHELLE BROADFIELD

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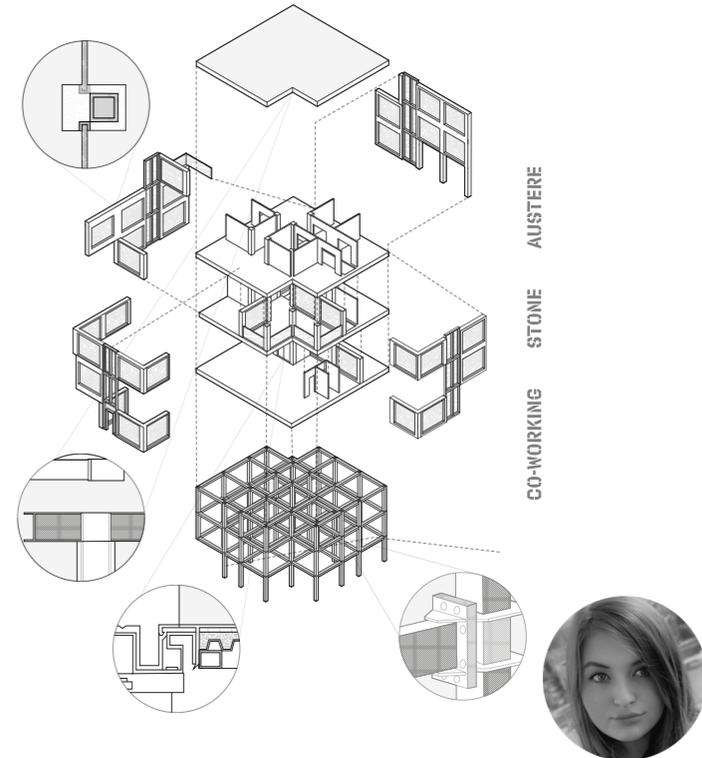
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Michelle Broadfield is a second-year BA (Hons) Architecture student studying at Birmingham City University. From an early age, she was fascinated by the built environment around her and always envisioned herself designing in the future. Her keen interest in architecture developed from her love for art & design, problem-solving, and the relationship between the natural and built environment. During her time at university, she has developed several architectural interests such as architectural history, urbanism, and sustainable design. With a focus on gothic and neoclassical styles; people-based design; and Passivhaus principles.

Michelle's skills include Rhino 3D, AutoCAD, Adobe Photoshop and Illustrator, drawing/sketching, mixed media, watercolor, and acrylic painting. In her spare time, she is learning different software such as Revit. In the future, she aspires to be an architect specialising in sustainable design for either residential and/or commercial schemes. Preserving, improving, and creating quality for future generations.



# STUDENT

**THI TRAN**

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I am currently studying architecture at Birmingham City University. Being a very creative person, I have always wanted to pursue a career based in the field of design. A few interests that I am very keen and enthusiastic about includes travelling and experiencing different culture within art, fashion, and culinary practice. I explore a lot of new methods to build upon my skills and exhibit a wide array of techniques in my projects. I get involved in a lot of programmes such as the RIBA Future Architect Student Mentoring scheme, which I achieved in my second year. During the same year, I entered the MOBIE Riverside Competition. With hopes of completing my bachelor's degree, I would like to continue to enhance my portfolio by continuing to participate in different opportunities in the industry of architecture.



# STUDENT

**UNMOL DHILLON**

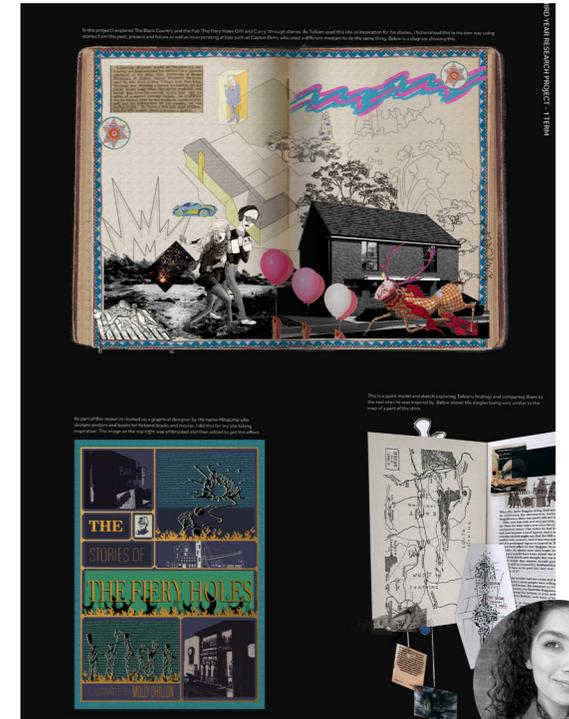
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I am in the final year of studying Architecture and have thoroughly enjoyed my academic experience. I love working with all my peers and tutors to find a resolution and create new and interesting designs. With doing a foundation year in this subject these 4 years have taught me to be resilient and to keep going. Along with my studies I am a keen photographer, and this leads me to be more of a creative problem solver. I have a desire to experience new cultures and environments and capture these experiences through pictures. I love to work and throughout my BA I have worked as a Luxury Retail Assistant, Apple Specialist, Optical Assistant, and have gained work experience in Align Architecture through the RIBA Mentorship Programme; these jobs have given me the interdisciplinary skills to push me further in Architecture, giving me confidence, teaching me time-management and more about working life.



## STUDENT

### ABDIRAHMAN ALI

#### LINKEDIN:

Abdirahman Ali

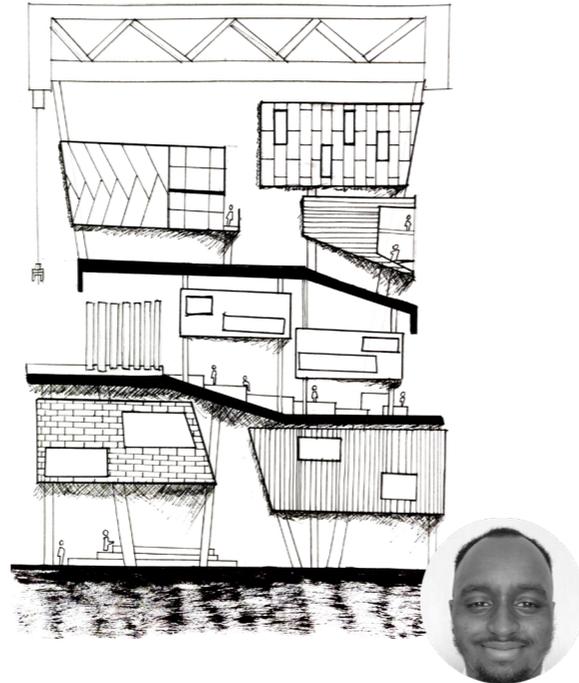
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Hi, my name is Abdirahman Ali, and I am an architecture student in my last year of study. Throughout my years of study, I have learnt many aspects of the Architecture, such as building details, concept designs and sustainable architecture. Which is something that I am really interested in, seeing how we can design and build carbon neutral building that help us combat climate change is very exciting. One building I like is the Cambridge Central Mosque by Marks Barfield which has a near-zero carbon footprint. Some of the other aspects I am enjoy are using the various different software's that are available to us. I am most proficient at are Photoshop, Illustrator and AutoCAD. Some of the projects that I am proud include, the mass housing scheme I did my second year and the project I am doing currently which is about a building with a changing façade.



## STUDENT

### JASPAL KHANGURA

#### LINKED IN:

Jaspal Khangura

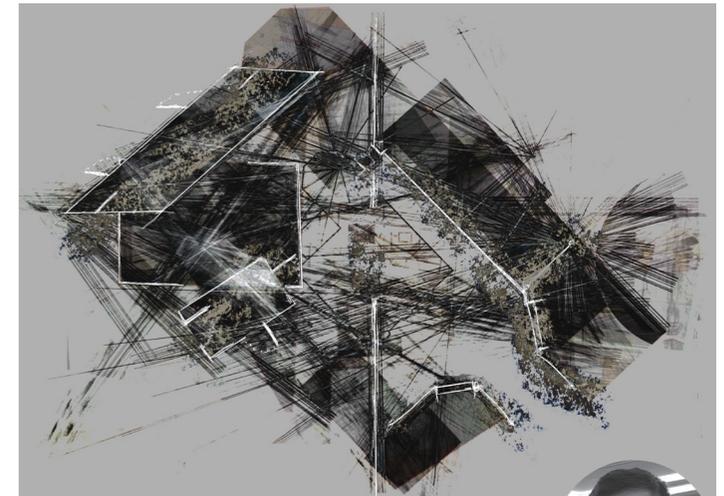
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Currently, a Part 1 Architecture student and an aspiring Architect, hoping to create structures for all sectors but focusing on the human experience as explored in projects I am currently doing. For example, storyboarding what the client would feel on their journey through the building and into key spaces, and how structures, material, and lighting can be adapted to the client, to provide a connection between human and structure. As well as this, I have developed skills, such as working with multiple groups on different projects, on a strict schedule, creating models, using multiple software, that is used in practices. Along with this, I enjoy giving feedback on L4 and L5's work and supporting them on their journey as well to becoming an architect and supporting their projects.



# STUDENT

## ESHE MORGAN

### LINKEDIN:

Eshe Morgan

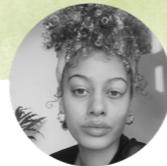
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Growing up in a multi-cultural city, I have learned to appreciate the contribution of different cultures to Architecture. From a young age, I have been intrigued by this as when volunteering at Sir John Soane's Museum, I explored remnants of the past that sparked my interest in Art. Architecture is an amalgamation of such Artefacts where historical examples could inform contemporary Architecture. When creating, I intend to consider how we experience buildings and how Vernacular styles can improve our collective quality of life. I have developed an interest in the natural connection between man and shelter; Sir David Adjaye quotes, "buildings are deeply emotive structures which form our psyche... the makeup of a person is influenced by the nature of spaces" (Sir David Adjaye, 2009). Art and architecture in conjunction with natural human experience birth tapestries of time.



# STUDENT

## NICOLETA RUGINA

### LINKEDIN:

Nicoleta Rugina

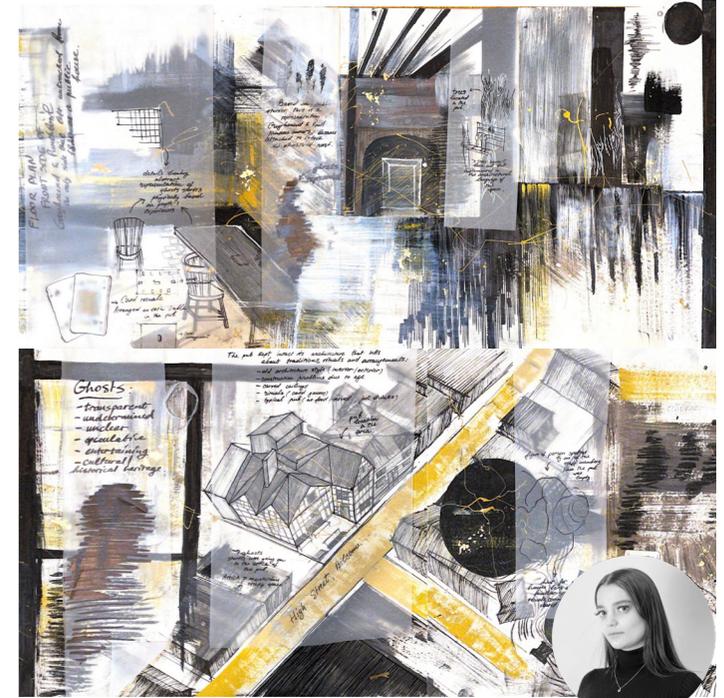
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I am a level 6 architecture student at BCU and fine artist coming from Moldova. Passionate about art and surrealism, I always strive to complement the architecture with the abstract perception of the surrounding world. I am dedicated and persistent to the projects I am involved in especially related to the sustainable solutions, trying to explore the diversity of materials, ways to navigate, experiences and feelings. As a designer, I am ambitious and driven by the aesthetic look of raw materials and the truth they are telling the users. I thrive on challenge and constantly set goals for myself, so I have something to strive towards. I'm not comfortable with settling, and I'm always looking for an opportunity to do better and achieve greatness. Alongside architecture, I am passionate about reading, philosophy, visual arts and performances, which are in a strong link with each other.



# STUDENT

## JOANNA BROWN

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Joanna Brown

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I am an Architecture Student in my final year of the BAarch course at Birmingham City University. I am 24 years old and I have lived in Birmingham my whole life. I became interested in architecture from a very young age and more specifically have gained a passion in the conservation of buildings and the built environment around us.

Since studying architecture I have had several weeks work experience with three separate firms, these include; West Hart Partnership in 2014, BPN Architects in 2016 and more recently DHA Architects in 2021. The skills I have gained as a student are with CAD softwares such as ArchiCAD, Rhino and Autocad, but also I tend to lean towards making many physical models of my work. I am also a keen photographer and have used Photoshop for many years to edit photos as well as create visuals for my projects at Uni. Other skills that I have are having a good understanding of a client's needs in depth, this is due to the experience I have volunteering with various community projects and through various customer service roles at a part-time job level.



# STUDENT

## SHIVSEN PADHIAR

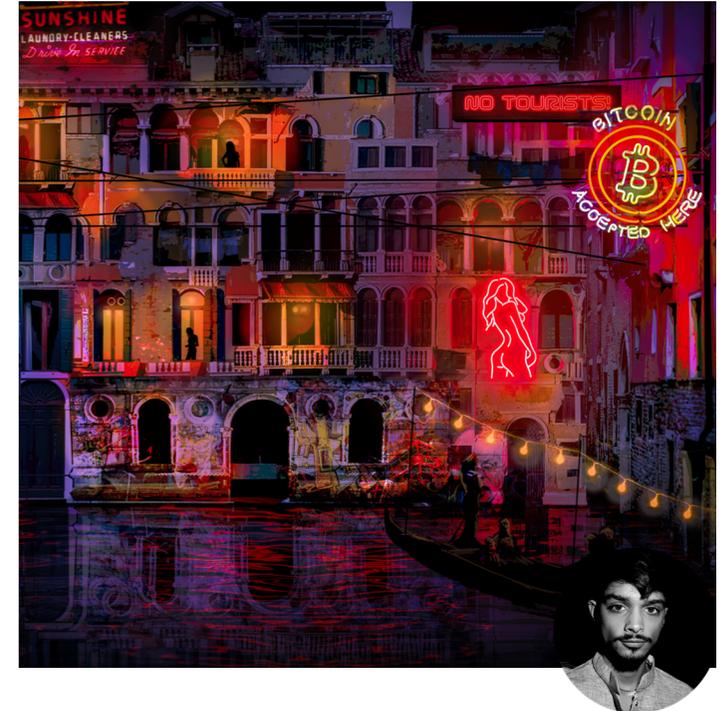
### LINKED IN:

Shivsen Padhiar

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My architectural experience begins beyond my baccalaureate and connects intimate memories of self-expression through design and art. As an Indian non-binary artist, I have always been intrigued by identity, expression, and its translation to the built environment. Architecture becomes a medium of culture: from designing a co-housing masterplan for a 'neo-Venice' with spaces for artistic, sexual, and gender expression to a 'free-masonesque cult-temple-brick-factory' that has the intention to decolonise the west and embrace intersectionality. Such themes have been integral to my experience designing inclusive spaces that draw on my personal and surrounding observations from volunteering, working, and extracurriculars leading societies alongside university. Such themes matter because, as Donna Haraway writes, "it matters what stories we tell to tell other stories with, it matters what concepts we think to think other concepts with" (Donna Haraway, 2019).



# STUDENT

## ZEENA NESAYEF

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I am a Part 1 architecture student in my final year who finds so much joy in what I study. I am very passionate about my designs, and I always ensure that I'm giving my all to my projects. I become a user of the space in my imagination which helps me empathise with the client leading to my design decisions. I can be a perfectionist but that is because I try to meet the brief in every way possible, hoping for the best outcome. My imagination is what triggers my creativity and leads me to design with ease. I am very ambitious, and therefore looking to become a fully qualified architect one day. Till then, I will stay optimistic and work to my full capability to achieve my dreams.



# STUDENT

## HIRA KHAN

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Art has always been an important part of my life, and I've fully embraced it in my work as an architectural student, which has motivated me to continue down this road.

As a result, I believe that architecture should be a constant source of visual storytelling, delivered in a variety of mediums throughout the design process. To record and transmit a site's rich history through the space's architecture.

Through the lens of art, my goal as a designer is to create a visible, spatial relationship between the past, present, and future. I believe that a building must provide a visible, spatial link between the past, present, and future in order to become a major milestone in the history of a region and its culture; the richness of an object is its content.



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