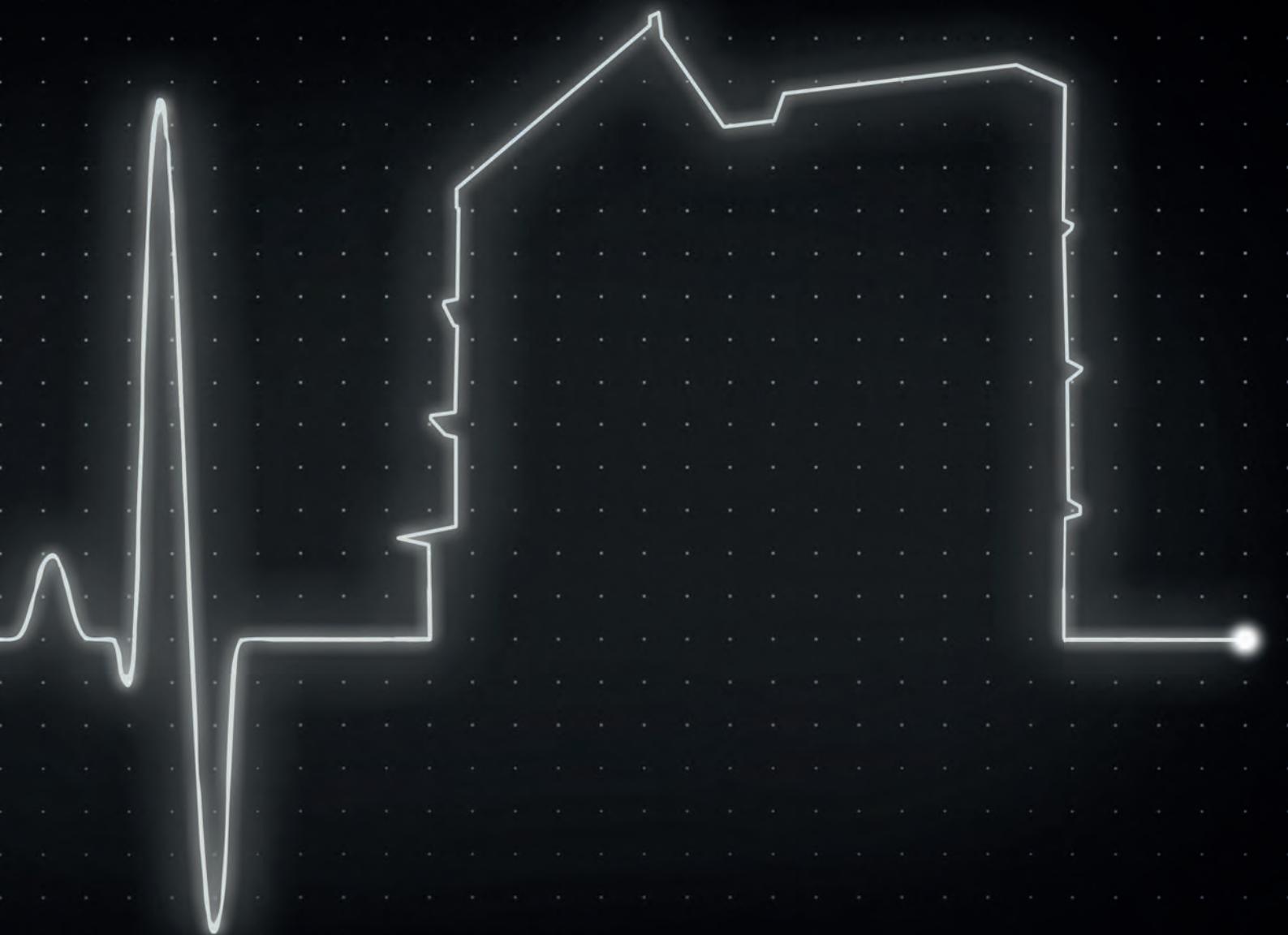
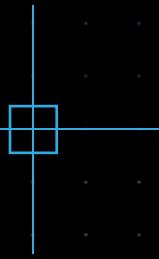


# paperspace



ISSUE ONE  
JANUARY 2014

## BEGINNINGS

NEWS REVIEW TECHNOLOGY HISTORY COFFEE BREAK  
STIRLING PRIZE 3D PRINTING PARTHENON CARTOONS

THE UNIVERSITY OF BATH DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING

Department of Architecture and Civil Engineering, University of Bath  
Find us online at [issuu.com/bathpaperspace](http://issuu.com/bathpaperspace)

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## Welcome to a new beginning

We are excited to present the University of Bath's first architectural magazine : *paperspace*.

*paperspace* wants to inspire you. We want to animate your passion for architecture and ignite your curiosity. In these pages, our writers share their interests and opinions to broaden your horizons, spike your creativity and challenge your beliefs. We strive to stretch the very limits of what architecture can be.

The name "*paperspace*" will undoubtedly revive delicious memories of AutoCAD imprinted in your brains like hot iron. But we believe that architectural education goes much further. It's about exploring history, urbanism and landscape; staying updated on news of the architectural profession; branching out to engineering or the arts. And, as students, it's the opportunity to create a stimulating environment to inspire each other.

For all of us, this month marks *the beginning of a new year*, hopefully rich in opportunities and experiences. For some, this new semester is also the beginning of placements. It's a perfect time to reflect on what 2013 has brought us. In these pages, you will learn how **first have coped with the discovery of architecture**; how **fourth years have survived Basil Spence** and their first collaboration with engineers. We will take you abroad to get a glimpse of the **3rd years' impressions of Erasmus**. We also explore more transformational beginnings with **last year's graduates** sharing their new paths away from 6East and **an interview of Stonewood Design, a newly established practice**.

Isn't the beginning of every project the most thrilling part? Taking the first leap, **defying the blank page** is a euphoric shot of inspiration. A simple **sketch on a napkin can lead to the Shard**. And in architecture, cyclical reinventions are a promise of **endless beginnings**. Let yourself be guided through these pages from primitive **architecture without architects** through the classical purity of **the Parthenon** to innovative technologies such as **3D printing** or open source modes of construction.

And if your new year's resolutions included becoming a knowledgeable, cultivated personage, you will find your heart's desire with our **book and film reviews, get inspired and "what's on" sections**. Is your workload casting a cloud on 2014? *paperspace* is your companion, and our **coffee break section** (complete with cartoons, crosswords and other geeky architectural games) is a perfect way to procrastinate while you face the daunting task of starting your new project.

Now I'll let you turn the first page and start this first issue with the *paperspace* team. We think it's pretty great – although we may be biased.

Welcome, and thanks for reading.

#### Marie d'Oncieu

Founder and editor in chief of *paperspace*

## News & Events

- 5 News: In Architecture
- 6 Open Letter: Build a Better Environment
- 7 Stirling Prize 2014:  
Astley Castle
- 9 What's On?
- 12 Interview:  
Emerging Concrete Technology
- 13 Column:  
What's in a Name?
- 14 Facing the Modern:  
The Portrait in Vienna

## Regulars

- 8 Building Review  
The Centre for the Arts
- 20 In Conversation  
Looking Back on Semester One
- 30 History  
The Parthenon
- 36 Technology  
The Rise of 3D Printing
- 48 Coffee Break

## Reviews

- 35 The Fall
- 35 Yes Is More
- 41 Drop City
- 43 The Japanese Impression



# Contents

## Beginnings

- 16 An Introduction
- 18 The Cloud and the Black Box  
A Note from Martin
- 19 Design  
The Mark as Beginning
- 28 Architecture without Architects
- 29 Belfast Regeneration
- 32 A Fresh Start  
An Interview with Stonewood Design
- 34 The Beauty of Scaffolding
- 38 Interview: Erasmus Experience
- 39 Open Source Architecture
- 42 A Bold Beginning  
The Shard
- 43 Two Nights Before 1st Crit
- 44 Architectural Relationship
- 45 What's Next?



An Introduction (p. 16)



Architecture without Architects (p. 28)



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## In the Faculty

- » Dr. Harry Charrington takes up post at [University of Westminster](#)
- » Dr. Enrico Fodde sadly passes away
- » Chancellor's Building completed
- » Work under way for [Centre for the Arts Building](#)

## In the Industry

- » RIBA reviews 3-part education system
- » ARB strikes 2000 architects off register for [non-payment of retention fees](#)
- » Witherford Watson Mann scoop [2013 Stirling Prize](#) for historic reinvention
- » dRMM win BD Architect of the Year 2013
- » Mecanoo's Birmingham Library voted AJ readers' favourite building of 2013
- » Kevin McCloud receives [MBE](#) in New Years' honours list
- » New [Stonehenge visitor centre opens](#) to visitors
- » Caruso St John complete renovation of [Tate Britain's Millbank](#)
- » Pritzker reject petition to recognise [Denise Scott Brown](#) as joint winner
- » "Walkie Scorchie" nightmare for Rafael Viñoly
- » Planning approval granted for Google's £1bn London offices
- » Balfour Beatty to convert Olympic Stadium for West Ham
- » Theis and Khan win competition for design of new [RIBA London HQ](#)
- » Zaha Hadid Architects release images for [Qatar 2022 WC stadium](#)
- » Peter Clegg defends [FCB Southbank](#) proposals
- » More criticism for Calatrava as city to sue for [Valencia](#) project

## In the World

- » London announced as [world's most expensive city](#)
- » Competition for [Expo 2015 pavilion](#) to be announced
- » Dubai chosen to host [2020 World Expo](#)

## The Education Review

By [Lilian Tran](#)

It seems the climate may soon be changing in architectural education, as the RIBA Council recently announced its consideration for ending the part I, II, and III system of professional qualification in architecture, which has been maintained since its inception in 1950s.

The RIBA suggests that the new structure would consist of either five years of university level training (5+0 integrated award), or not less than four years of study with two years of professional traineeship (4+2 route). This would allow some graduates to register as an architect at the end of university study, and is in line with the EU professional qualifications directive. Other measures may include conversion courses for graduates with affiliated degrees and graduates from non-validated schools, to encourage flexibility in the system.

Overall the proposal for change seems to be a step in the right direction, by making architectural studies more accessible and less of a financial burden given the recent rise in university fees. As someone who is now in her fourth year of architectural studies, the possibility that under this system I would be able to enter into professional practice for the next two years and then qualify as an architect is an exciting prospect.

However the idea of the integrated award, which combines study with professional and practical issues, suggests students can qualify as an architect with very little or no practical experience which is absolutely terrible. It simply isn't realistic to expect a new graduate to be able to handle the professional, legal, economic and business aspects of running a project straight out of university. The RIBA has insisted in its review that "every option is on the table" - and this option clearly needs to be amended.

By [Emma Matthews](#)

## Norman Foster's Cycling Network

A scheme for London has been proposed by Foster and Partners for car-free cycle paths, built above the railways. A 220 km network of safe cycle routes would be accessed by 200 entrance points. The proposal was designed with the help of exterior architecture and transport consultant Space Syntax, and if it is approved could exist within 20 years. Currently the design team is focused on raising funding for the feasibility study. It is also working on the details of a £220 million trial route between Stratford and Liverpool Street stations.



## Amazon's Greenhouse office space

Three interconnected glass spheres that resemble a greenhouse will form the heart of a new Amazon office designed by NBBJ Architects, in Seattle. In total it will cover over 300,000 square metres over 3 city blocks, with the spheres themselves containing four stories of open plan office space for 1,800 employees. Work spaces will be surrounded by trees and small vines, which will be specially selected to create a microclimate, suiting the office environment.



## AJ's Women in Architecture Awards

AJ's Women in Architecture Awards will be held on the 7th February. Created in 2012 as part of the AJ Women in Architecture Campaign, they aim to celebrate excellence in design and promote role models for young female architects. There are three awards: Women Architect of the Year, Emerging Women Architect of the Year, and the Jane Drew Prize. Last year Alison Brooks received Women Architect of the Year, after her London-based practice along with two others received the Stirling Prize in 2008.

# Open Letter: Build a Better Environment

Dear Dame Breakwell,

I am honoured to be a student at the University of Bath. I work in an environment surrounded by hundreds of intelligent, like-minded students that amplify the already positive and happy environment here.

This is one of many factors that contribute towards our University being awarded so many high rankings. We are the best University for student satisfaction and the best Campus University.

I am also a final year Architecture student. Our department has been, for the past several years, in the top three Schools of Architecture in the country. The department is home to internationally recognized research in Civil Engineering, Architectural history, and technology.

Our students are some of the best in the world. Some go on to win renowned RIBA President's Medals. Graduate employment is high, and students report 97% satisfaction.

Yet, I find myself in an environment where there are no world-class buildings. What are the Universities aspirations with regard to building design? Are there any benchmarks against which building design is measured? Most importantly, where are the world-class buildings that should define this campus as the award winning one that it is?

**Harry Streuli**  
4th Year Architecture  
Department of Architecture and Civil Engineering.



Stirling Prize winning Sainsbury Laboratory at Cambridge University



The Chancellor's Building at the University of Bath

# Stirling Prize 2014: Astley Castle

On a grey and rainy Monday morning in December, I was lucky enough to be asked to represent my placement practice, Callingham Associates, on a tour and talk of Astley Castle, Warwickshire. A tour round a reinvention of ruins.

By Lauren Carpenter

The local branch of the RIBA organised the event, and I jumped at the chance to see the first building in the county to win the prestigious Stirling Prize, as well as taking a few hours out of the office!

The building has been something of a local landmark, having first been built in the 12th century, and was briefly the home of Lady Jane Grey when she was Queen, even if for only nine days. Some of my colleagues even remember attending weddings, parties and various events there before the mysterious fire which turned it to a ruin in 1978.

The Landmark Trust acquired the rotting site in 2000, and appointed Witherford Watson Mann Architects to renovate the derelict building.

The talk was fascinating, and it was great to be led around the newly opened holiday home by the architect who had designed it. They have retained as much of the ruin as possible, and have abutted large masonry diaphragm walls in line with the ruins. These walls not only support the structure, but are set back slightly to allow the ruin to be clearly read. The choice to use an extremely thin brick was inventive, as it enables the brickwork to be 'stitched' right up to the ruin, without having to cut the bricks.

Witherford Watson Mann invented their own brick bond, which created eye catching diagonal patterns, intended to highlight the diagonal lines created by the ruins. In total, over one hundred individual drawings had to be drafted, intricately designing every single joint between new and old.

The typical house layout has been inverted. The bedrooms and bathrooms are on the ground floor, whereas the open plan living/kitchen area is on the first floor. Working with the large openings created by the ruins, more light is allowed into the first floor 'nucleus', whilst cleverly hiding the glazing behind the original derelict window frames, so as not to be read from the exterior.

My personal highlight of the project was the outdoor dining room. The entrance to the building is through two massive courtyards, both held together by a timber structure at the top, but with no roof. This space doubles up as an external dining room, perfect for summer evenings.

There is a huge 15th century fireplace in one wall, which after restoration is a working fireplace. The rotting shutters are left on the now scenic windows, which frame the views of the stunning Warwickshire landscape. In the centre of the outdoor space sits a grand table, created from the Georgian bricks which were once part of the building, and topped with a large chunk of

slate, also found within the ruins.

It is magnificent, that a building with so much local history has a new lease of life – the 8 bed holiday home is fully booked for the next 3 years!

It feels as if this is not just a conservation project, but is a reinvention of the ruins.



# The Centre for the Arts

As many people will know by now, the University has begun work on a £10.9m Centre for the Arts on campus to house the Institute of Contemporary Interdisciplinary Arts (ICIA), designed by Feilden Clegg Bradley Studios.

By Lilian Tran

It will adjoin onto the existing Art Lecture Theatre, which is also to be refurbished, and replace the old Arts Barn that has now been demolished.

The centre is part of a three-year £100 million campus improvement project, of which the Chancellors Building has already been completed, and a further student accommodation complex and refurbishment of 1 West is in progress. The new building is set to include dance studios, a theatre, performance spaces, orchestra-sized rehearsal studios and a cafe. There will be a contemporary art gallery for hosting exhibitions and talks, and a dedicated education suite for the executive MBA programme.

As a complex it should turn out to be a great addition of facilities for the interdisciplinary arts classes and teaching, and will encourage students of a predominantly science-focussed University to get involved in the arts. The aim is to create a hub for creativity and innovation, and to attract new visitors to the campus.

Interestingly, the original Arts Barn and Arts Lecture Theatre were built in 1990 by Alison and Peter Smithson in a very flexible manner, with the view to phase-in an additional 14 component buildings as and when funding became available. Unfortunately the funding did not materialise, and their plans for a 'conglomerate structure' never happened.

The new building design will help to define a new courtyard space as initially intended by the Smithson's, and flexibility of space is still key to the scheme, with the existing theatre also being used for general teaching when not required by ICIA.

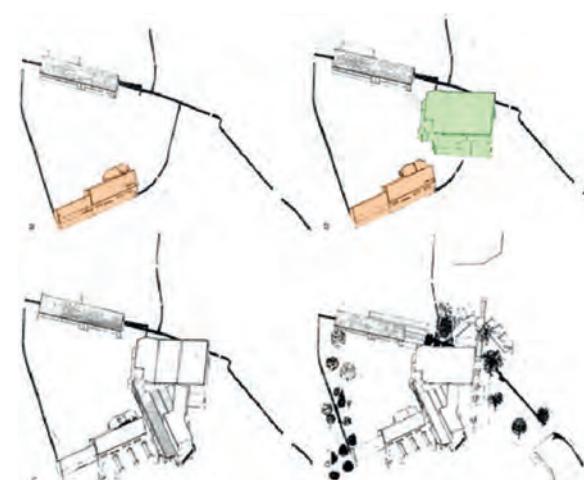
At the moment construction is well under way with the foundations in place and work beginning on its concrete wall frame. Once complete, the building will be four storeys at its peak, with a steep mono-pitched roof and the facades are to be clad in aluminium. To keep up to date with the progress, more information can be found on the ICIA New Build blog: <http://www.bath.ac.uk/icia/newbuild/>



Perspective of the Centre for the Arts courtyard



Night-time visual of the new ICIA Centre



These diagrams explain the phased planning of the Smithsons' design - part d shows intended final outcome. The Arts Barn (orange) is now to be demolished, but the Arts Lecture Theatre (green) will be retained.

# What's On: Hello, My Name is Paul Smith

15 November 2013 - 09 March 2014  
Design Museum, 28 Shad Thames, London, SE1 2YD

Exhibition Review By Reshma Upadhyaya

The exhibition at the Design Museum, takes you through the career of fashion designer Paul Smith, from his humble beginnings in a three-metre wide shop in Nottingham to his success in an array of design fields and international acclaim today.

As you enter the exhibition you are faced with a hall full of Paul's inspiration, from film posters, to photography and works of art. You could wander through countless times and always notice something different, which gives you a taste of all the things that may have sparked a design.

You are then led through galleries that display the many collaborations that he has taken part in; from the Mini Cooper, to David Bowie's album artwork and stamps from the London 2012 Olympics, it's fascinating to see how much further than fashion his designs go.

It was refreshing to see that he had dedicated an entire portion of the exhibition to the design of his shops. Several examples showed the incredibly diverse design of his shop interiors, exploring inventive ways to display his clothing range. His design goes beyond the product to embody the whole experience of a Paul Smith boutique.

The exhibition then turns its focus to the design process, with replicas of his studios showing sketches, fabrics and prints, as well as what seems like clutter, but is explained to be anything that could spark off an idea.

“Everyday is a new beginning.”

Finally, you reach a gallery of selected items from his collection, inspired by travel, colour, print and British tradition. The preceding rooms of the exhibition serve as a prelude to uncover the journeys he has taken to reach these pieces.

What I found most inspiring about this exhibition, is that it demonstrates Paul Smith's attitude towards design. Inspiration is gained from anywhere. A designer need not be constrained by their field, but instead could benefit greatly from exploring other mediums.

The exhibition takes us briefly “Inside Paul’s Head”, where we hear him speak about his inspiration as vibrant videos are played around us. He encourages us to keep track of all of the ideas that come into our head, with sketches, notes or photos; something that none of us probably do enough.

He tells us: “You can find inspiration in anything. If you can’t, look again.” With any luck, we can take this moral with us as architects, especially in those desperate moments when it feels like inspiration is truly lost.



Paul Smith Collections



A replica of Paul's Covent Garden studio



Mini Cooper and Paul Smith - signature stripes

# What's On?

## A small dose of culture and artsy things to see...

Great Estates: How London's landowners shape the city  
17 October – 17 December 2013  
The Building Centre, WC1

Rating: 



### Exhibition Review by Tom Gregory

This recent temporary exhibition at the Building Centre in Store Street, London WC1, explored the creation and expansion of the London Estates through a series of models and wall displays. The individual character of each of London's Estates has created different streetscapes in their areas. Their influence is not only historical - these Estates are still present and expanding so are key drivers and stewards of our capital's urban fabric.

The focus of this exhibition was a development model of London, showing a vast swathe of the city centre with recent additions and current proposals. It clearly illustrated the 'cluster' nature of new buildings and planning proposals in the centre, as well as the Crossrail plan, weaving its way laterally across the city.

Individual model displays of new Estate developments around the capital included the new Earl's Court masterplan, and the development proposals for the Queen Elizabeth II Olympic Park, illustrating the three stages of regeneration in the area.

Two smaller exhibitions gave a flavour of other building and design projects in the capital: the Don't Move, Improve! Awards, celebrating extensions and small-scale additions to current buildings and highlighting the positive impacts on the townscape that these elements can often give. There was a display of a hundred recent projects from all over the capital, which sought to highlight good architectural practice in a variety of different categories, from larger government projects to smaller domestic ones.

The permanent exhibition of borough developments, showing key policies and proposals under consideration provided a useful context for all three exhibitions and is well worth a visit!

## Things to see in Bath and Bristol...

### RIBA International Awards

22 January 2014 - 19 April 2014  
Royal West of England Academy, Queens Road, Clifton, Bristol, BS8 1PX  
An exhibition featuring original awards panels, models and films from the most recent RIBA awards.

### City Lives – Contemporary art in a changing world

30 November 2013 - 02 March 2014  
Bristol Museum and Art Gallery, Queens Road, West End, Bristol, BS8 1RL  
Artists from around the world explore the issues of urbanisation today.

### Joëlle Tuerlinckx: Wor(l)d(k) in Progress?

07 December 2013 - 09 February 2014  
Arnolfini, 16 Narrow Quay, Harbourside, Bristol, BS1 4QA  
Tuerlinckx's work focuses on the role of museums and their relationship to communities. Her use of materials, colours and abstract shapes engage the visitors' senses and creates a landscape of experience.

### Georgian Fashion: 18th Century Dress For Polite Society at the Fashion Museum

25 January 2014 - 01 January 2015  
Fashion Museum, Assembly Rooms, Bennett Street, Bath, BA1 2QH  
Original 18th century outfits worn by the Georgian rich and famous, with a finale of 18th century inspired fashion from Vivienne Westwood to Alexander McQueen.

### Peter Brown: Keep the Home Fires Burning

08 February 2014 - 27 March 2014  
Victoria Art Gallery, Bridge Street, Bath, BA2 4AT  
Nicknamed "Pete the Street" for his habit of working outdoors, Pete Brown displays a collection of paintings and drawings of Bath.

### Kathy Dalwood The Secret Society: A Sculptural Banquet

08 February 2014 - 27 March 2014  
Holburne Museum, Great Pulteney Street, Bathwick, Bath, BA2 4DB  
A bizarre banquet of plaster busts inspired by lavish feasts and architecture, design, sculpture and fashion throughout the ages.

### Wildlife Photographer of the Year

30 November 2013 - 23 February 2014  
M Shed, Princes Wharf, Wapping Rd, Bristol, BS1 4RN  
Anyone who has caught this touring exhibition before will know that it exhibits some of the very best nature photography. In its 49th year it also brings a display of the wonderful wildlife of Bristol...

## Things to see in London...

### Sensing Spaces: Architecture Reimagined

25 January 2014 - 06 April 2014  
Royal Academy of Arts, Burlington House, Piccadilly, London, W1J OBD  
A selection of installations to showcase the work of architects such as Kengo Kuma, Alvaro Siza and Eduardo Souto de Moura to name but a few.

### Pop Art Design

22 October 2013 - 09 February 2014  
Barbican Art Gallery, Silk Street, London, EC2Y 8DS  
Described as the first comprehensive exhibition exploring Pop Art, the exhibition displays over 200 works by 70 artists and designers.

### New Order II: British Art Today

24 January 2014 - 23 March 2014  
Saatchi Gallery, Duke of York's HQ, King's Rd, London, SW3 4SQ  
A second installment of work from an assortment of up and coming British artists, featuring painting, sculpture, installation, film and video.

### Emerging Architecture

LAST DAYS: 28 November 2013 - 22 January 2014  
Gallery One, RIBA, 66 Portland Place, London W1B 1AD  
Now in its 15th year, Emerging Architecture explores the work of young architects. Previous participants have included Thomas Heatherwick and Sou Fujimoto.

### Don't Move, Improve!

06 December 2013 - 06 February 2014  
NLA, The Building Centre, 26 Store Street, London WC1E 7BT  
These awards aim to raise the profile of smaller architecture firms by discovering the most innovative extensions, small office conversions and home interior design.

### 3D Printing: The Future

07 January 2014 - 01 June 2014  
Science Museum, Exhibition Rd, SW7 2DD  
With over 600 objects on display, this exhibition explores the future of 3D printing in medicine, industry and small businesses.

### David Lynch: The Factory Photographs

17 January 2014 - 30 March 2014  
Photographers' Gallery, 16-18 Ramillies St, W1F 7LW  
A series of black and white photographs of dilapidated factories shot in Germany, Poland and New York.

### Club to Catwalk

10 July 2013 - 16 February 2014  
V&A Museum, Cromwell Road, London SW7 2RL  
This exhibition explores the emerging theatricality of the fashion of the 1980s, featuring some of the most experimental young designers of the time.

# What's On?

RIBA President's Medals 2013 Exhibition  
05 December 2013 - 29 January 2014  
RIBA, 66 Portland Place, London

Rating:  Website: 



Grunewald's Athenaeum, Razna Begum (Part 1), University of Greenwich

### Exhibition Review by Emaad Damda

The RIBA President's Medals are awarded each year to "promote excellence in the study of architecture", "reward talent" and "encourage architectural debate worldwide". Exhibiting a selection of work from architecture schools around the world, it certainly does all three things. This year's show, however, will attract the same criticism that it gets year on year.

Whilst there is no doubt of the talent and level of thought that each student has presented in the work displayed, there is a clear disconnect between some of the projects to reality. One project (although thought-provoking and beautifully represented) has a brief set 250 years into the future. Is this relevant to anything in practice today? Obviously universities should allow one to think beyond the usual constraints and develop a level of free thinking, but surely we need to be questioning the issues that we are bound to face in the foreseeable future?

The Bartlett swept the big awards for the Silver, Bronze and Dissertation Medals with some excellent design propositions. It could perhaps be said, again, that there is a bias towards London schools with just under half of the projects exhibited coming from London graduates. Only a handful come from UK schools outside London and Part I projects are also woefully under-represented. Bath is represented by Sigita Burbulyte (winner of 2013's Norman Foster Traveling Scholarship) for her exploration of slum communities around the world. For me, Grace Mills' (University of Wellington, NZ) New Agora for the earthquake-ravaged city of Christchurch was the highlight. The project tackles a current socio-economic issue in a very sensitive manner, and is put together in an incredibly clear, considered and critical presentation.

Verdict: Not worth the visit. You could sit at home and go through the whole range of quality student work online (only around 30 are exhibited). Some of you may recognise the work of Charlie Proctor (Part I) and the Part II sustainable masterplans for the cities of Nicosia and Lisbon.

# Interview: Emerging Concrete Technology

Considering how much time students spend in studios, it's odd to think that the engineering research of our own department can go unnoticed. We decided to investigate what is happening in all those offices mere metres away from Studios. We spoke to Kevin Paine, a senior lecturer in Civil Engineering, about his research project on self-healing concrete, and Dr. John Orr, who joined us as a lecturer last year, about his work on flexible formwork in concrete.

**Interview by Lilian Tran and Harry Streuli**



**Kevin Paine, BEng PhD**  
*Self Healing Concrete*

**To begin with, what is self-healing concrete, and how does it work?**

Concrete is perceived as a very strong material, and while that is true, it can sometimes crack. When a crack forms water will inevitably get in and may corrode any steel rebars at its core, at which point the concrete would completely fail. However in self-healing concrete there are capsules embedded within the mixture that release bacteria spores and prevent water from getting inside. These capsules contain calcium salt, bacteria, and nutrients, so when they're exposed to water and oxygen, they react to form calcium carbonate, more commonly known as limestone. The advantage of this type of concrete is that it can be used in places which are inaccessible, for example underground or underwater, where concrete repairs can't be carried out. As a result the material is estimated to provide a 50% cost saving in the long-term because it is low-maintenance.

**So where did this whole idea come from?**

A while back the Architect's Journal was running a piece on self-healing concrete and called me to ask for my opinion on the idea. In fact at the time I hadn't actually heard of it before, but I thought it was a good idea! I became aware of an investigation into self-healing concrete at TU Delft, Netherlands, and went to visit the man leading the research, Henk Jonkers, in November 2011. He was looking at using the material to repair already-cracked concrete but was not yet using it as a construction material from the outset. The idea looked very promising and I saw an opportunity to do some further research myself. I then applied for a research grant from LIMES.NET (Network for Low

Impact Materials and innovative Engineering Solutions for the built environment), who were looking for UK researchers to explore sustainable construction materials, and fortunately the project funding was awarded in December 2012.

**That sounds like this happened quite recently, what stage is the project in at the moment?**

The project only began 6 months ago in July 2013, so it is still in the early stages of progress, mostly developing the biological side of the material. There is a team of 4-5 staff currently working on the project at Bath, and in 2-3 years time we hope to build a trial structure using the self-healing concrete.

**Are there others involved in the project?**

Yes, the project is in collaboration with the University of Cambridge and Cardiff University. Cambridge is dealing with the micro scale of the process; formulating the micro capsules, while Cardiff deals with the macro scale of the process; the larger cracks in concrete and Bath works on the midi scale in between; developing what goes into the capsules. At the moment we're also collaborating with the biology department, who are helping with finding a method to keep the bacteria alive within the concrete mix, as concrete is of course a harsh environment to bacteria to live in.

**What are the barriers to its success?**

One concern is searching for a type of bacteria that can produce lots of spores as well as be good at converting the calcium salts into calcium carbonate. But the main issue is the microcapsules themselves that contain the bacteria - they need to be strong enough to survive the concrete mixing process and also not get crushed as the concrete cures and densifies, however they must also break open when a crack forms in the concrete, in order to produce the healing agent, calcium carbonate. This is what we'll be experimenting with to come up with a design solution.



**It sounds like a project with great potential, and we'll be very interested to know how it turns out, so the best of luck to you and your team!**



**John Orr, MEng PhD**  
*Flexible Formwork*

**What stage is research and teasing of fabric formed concrete beams currently at?**

Deidrik Veenendaal 'invented' fabric formed concrete structural element almost 50 years ago. Research into the topic began at the University of Bath in '05/'06. I undertook my phd in flexible formwork. It involved prediction the shape and behaviour of concrete beams in the range of 3-5m spans. However, whole building methods employing flexible formwork is not yet fully understood; new research is being undertaken to understand holistic structural systems, as well as predicting the shape and behaviour of more elaborate concrete forms such as shells and double curvatures.

**How do you see flexible formwork expanding with continued development?**

Mark West of CAST has begun researching formwork used to create shells and double curvatures. There are many avenues for further research along these routes, which are increasingly complex and architecturally interesting.

**The architectural and engineering benefits of flexible formwork are obvious, how will this break into mainstream commercial construction?**

There is good cooperation from a couple of contractors, who are interested in developing the construction technique. These are Skanska and Liang O'Rourke. The latter has a concrete production facility in the UK, so are hopefully able to easily produce bespoke concrete elements on a fairly large scale. This decreases the risk associated with construction projects that would normally be a significant deterrent to potential clients and contractors. Additionally, the construction technique is ideal for forming bespoke concrete sections as it is simple to rearrange flexible formwork into different dimensions, and should only require a simple jig rather than complicated timber formwork used in traditional concrete.

**Form optimised concrete can reduce the amount of concrete used in traditional sections of concrete beams and columns by up to forty percent. The research at Bath is the first to be applied to this technology, which has only existed as a concept before now.**

# What's in a Name?

**By Emaad Damda**

An e-petition recently lodged on the direct.gov.uk website concerns the protection of the title 'Architect' to include 'Architectural' and the word 'Architecture' itself. Whilst the idea to regulate a word as general as 'Architecture' is ludicrous in itself, the intentions are honourable, for architects at least. One could argue however, that it is ultimately useless.

Let's forget for a second that Part I and Part II 'Architectural Assistants', the lifeblood of practices, get somewhat demoted in all of this. If we stop allowing the 'Architectural Designer' title, there will just be another one created with exactly the same job description (for argument's sake, let's say 'Building Expert'). The Architects Act 1997 purely protects the title of the Architect. Anyone can still submit a planning application. Homeowners can draw up plans and price it themselves if they want to. Builders don't even necessarily need detailed drawings to begin construction. It may well be a terrible building, but that's a different story. Signing off drawings, i.e. taking the risk and liability is essentially what the title 'entitles' you to.

**“Practising architecture is not the same as being called an Architect”**

Yes, quality and value is what architects add, but how is that quantified? Who wants to pay for it? Architects are increasingly marginalised in a growing industry where much of what they do is outsourced to specialised consultants. The ARB and RIBA can't do or aren't doing anything significant about it. Practising architecture is not the same as being called an 'Architect' and changing the legality of a job title isn't going to do very much. The general public don't even know what architects actually do (refer to AJ's Max Thompson's article of 19 May 2012 <http://www.architectsjournal.co.uk/news/daily-news/its-true-people-dont-know-what-architects-do/8633240.article>). Until the ARB and RIBA do something about somehow protecting the role of the architect within the construction industry, all of this is meaningless.

# Facing the Modern: The Portrait in Vienna

A step-by-step tour of my visit to an exhibition at the National Gallery in London



By Paulina Konkina

The National Gallery (founded in 1824) is located on Trafalgar Square, London, and is considered to be one of the most famous art museums in the world, housing over 2,300 paintings covering the period from the mid-13th century to 1900. The present building, designed by William Wilkins in 1832-1838, was the third to house the collection of the National Gallery. Wilkins wanted his project to become the "Temple of the Arts, nurturing contemporary art through historical example". Although the front façade has not been exposed to any changes after his death, the building has been repeatedly expanded throughout its history.

Many great artists such as Gustav Klimt, Egon Schiele and Oskar Kokoschka produced remarkable paintings examining the central role that portraiture played in Viennese painting around the 1900s. This exhibition at the National Gallery deals with the artistic, cultural and political issues that played a role in Vienna from 1867 to 1917. I decided to make a small paragraph about what I see after each ten steps around the exhibition.

The first ten steps bring me to the doorway of the first hall creating a transition between centuries. The room is filled with the portraits of historical figures, self-portraits or their loved ones.

Friedrich Von Amerling painted a stunning portrait of his first wife on her deathbed. It expresses an intimacy and subtle

sadness that is captured by a pastel palette but you can still catch a glimpse of desperation as his motives for this particular piece.

Standing in between two paintings - "The Mark Family" by Alois Delug and "The Family Self-Portrait" by Edgar Schiele - creates an interesting contrast between their techniques. Delug painted in soft pastel tones in more modern style, with controversial brush marks and vivid colours, with figures that are reminiscent of broken puppets.

At first, the portrait of Isabella Reisser by Anton Romako looks ordinary for this period of time, however, abnormal proportions and texture could be an inspiration for Edgar Schiele in the future.

The next hall deals with the theme of 'New Viennese' - the middle class in the 1900s. Passing several paintings by Edgar Schiele gives a sense of transformation of the century and the evolution of social culture, that is supported by disturbing colour and dark tones responding to the political tensions within the country at that time.

A very controversial nude self-portrait by Richard Gerstl focuses on emotions and the cultural conflict created by the contrast between the accepted classical movement and a modern school. On the other side, there is a self-portrait of Teresa Ries that is overpowered by the energy created by the artist as if looking down at viewers.

A painting called 'A Lady In Black' in 1894 by Gustav



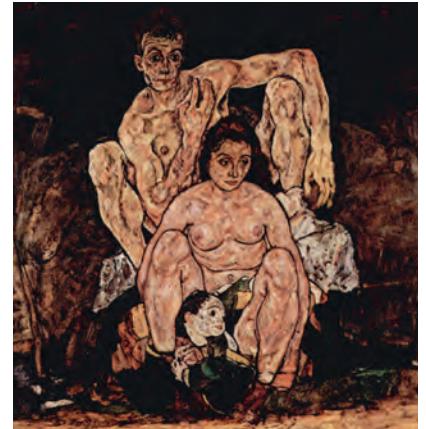
Klimt captures every detail of the model, that almost looks like a photograph. And on the other side there is a fragment of a full self-portrait of Richard Gerstl

The next room has a much more dramatic lighting that strengthens the theme of this part of the exhibition - 'Love And Loss'. A quick study of Edith Schiele dying conveys the commemoration of the dead into history. A small pastel study by Klimt is full of soft and warm colours that contradicts the idea of losing a child.

The last room is titled 'Finish And Failure', marking the end of the exhibition but also the era of the Viennese school of painting movement that was destroyed by the First World War. Revolutions and change of European borders resulted in a change of Austrian culture. All paintings express this idea in different styles but all of them are linked together through darker shades of colour and less details as if artists tried to capture a moment knowing they were running out of time. A series of portraits by Oscar Kokoschka, representing the Schmidt brothers - Hugo Schmidt, Max Schmidt and Carl Leo Schmidt. None of the figures face the viewer as if they are ashamed, or are hiding something, constricted by the frame.

The last portrait of Amalie Zuckerkandl by Gustav Klimt is very unexpected and seems to be out of place because the pastel palette and warm background contrasts with the dark grey colour of walls reinforcing the theme of this part of the exhibition. A link to the style of Impressionism suggests that this painting is a memory or a dream.

This exhibition is definitely worth visiting. The interior does not distract your attention away from the paintings and creates a gradual change of your journey into the past. The lighting changes more dramatically in the last few rooms of the exposition, reinforcing an atmosphere of loss, death and ending that runs through the paintings. In my opinion, the lighting could be designed in a less drastic way, although this could be a deliberate decision to remind us of a dramatic change in the artists' lives during the early 1900s.



# Beginnings

This photo was shot in Mahdia, Tunisia, a coastal town very much secluded from noise and tourism. Unsurprisingly dominated by Islamic architecture, the area unexpectedly gives way to a few hidden hints and treasures of a Roman past. The arch in the photograph is on the outskirts of the town and about a mile's walk from the nearest road, very difficult to find unless taken to it.

The arch is called Bab Al Bahar, which means "Door of the Sea", after its surrounding structure got demolished and it survived as a small mysterious ruin giving way to the great blue.

Photo by **Yacine Abed**

Winner of the photography competition



# Note from Martin: The Cloud and the Black Box

*"Every child is an artist. The problem is how to remain an artist once he grows up."* Picasso

By Martin Gledhill

In 1990 the critic Reyner Banham wrote an article entitled *The Black Box* – the secret profession of architecture in which he wryly observed that the education of architects was essentially one of compression into an approved stereotype, that of the heroic visionary – The Architect. This process broadly involves learning to use language in a manner incomprehensible to family,

**“A language rehearsed and refined through a process of ritual sacrifice - often known as *The Crit*”**

friends and to those for whom they ultimately will design. A language rehearsed and refined through a process of ritual sacrifice often known as *The Crit*, aided or anaesthetized in no small part by sleep deprivation and microwaved food. In addition they are fermented into a concoction of effete, aesthetic sophistication that makes shopping for even the simplest item into a struggle with the forces of universal harmony. Ironic perhaps that the black box is that very device that accident investigators use to examine what went wrong.

#### The Black Box

I have tried to capture this model in the drawing above. This shows an array of young individuals each with their own creative uniqueness passing through a painfully narrow threshold into our black box, chaotically processed within it and eventually emerging triumphant, with an Apple icon as a head and a two digit hand perfectly evolved in order to click the mouse or to send a text; nicely anticipated by Corb. Quite a club!



Since I was asked to write something about new beginnings I wondered if we might consider a different model to the secret curriculum set out above.

#### The Cloud

Here that very same collection of individuals coalesces into an equally chaotic field with all its affinities and enmities within, one we might term - a Cloud. The initiation rituals are broadly the same and nonetheless challenging but the individual emerges as just that – Individual. Transformed certainly, but as my old mate Carl Jung observed – every individual is an exception to the rule.



# Design: The Mark as Beginning

*The white page, empty and intimidating, is a fearful image for many of us as we start creating or designing.*

By Tom Gregory

There is even a name for this: 'blank-page syndrome', which affects many architects. Like other creative arts, we are subject to a pressure to create the right marks on the page, an instant masterpiece. Although of course this could happen, it is certainly a rare starting point. Very often the most sophisticated designs and ideas are developed through a series of reconciliation and evolution of an initial thought.

The theme of this inaugural magazine issue, itself a set of blank pages until written and designed, relates strongly to this theme of the beginning of an architect's design process, both theoretical and practical. Whatever method is used, each must focus upon the manifestation of a central idea.

**“the method of putting pen to paper really is the act of designing”**

Although the blank page can be a scary starting place, the beauty of it is that it holds no precondition or preconception – anything is possible. One must simply start with a theoretical statement, whether right or wrong, and try to make that evident through line and shape. With the arrival of this, the form can be crafted and adapted to relate to external constraints and opportunities, allowing the design to become more and more sophisticated as more layers of meaning and depth are added.

The word for design can be traced from the old Italian word *disegno*, meaning drawing. Through this act of drawing and making the mark manifest on paper, the theoretical construct of the idea is drawn forth. This has the implication that the method of putting pen to paper really is the act of designing. Whichever thoughts can be mentally constructed, are only 'designed' in the process of forming them on paper. This notion leads then to the mystique and power of the pen, as a symbol of creation.

During the Renaissance period of the 15th century, the cultural relation between man, expression, pen and paper was formalised. This history is important to bear in mind as we stand on the edge of the Renaissance of our age: the rise of Digitisation.

Over the last couple of decades the digitisation of the world is reflected in the conceptualisation and construct of much of its architecture. This use of computer tools to aid in the design process has brought many benefits and forms that perhaps could not have been imagined beforehand, but has perhaps drastically altered the relationship between our hand and the 'paper' on which we draw.

Perhaps the most obvious difference is the separation of hand and image. When we use a mouse in drawing line and shape on screen, we are not physically connected. Although there have been significant advances in the use of tablet technology, the hand still feels separate to that created on-screen.

When we use paper to create our designs, each new line and correction brings a different layer and advancement to the original construct. The very nature of this ink on paper, adapting and swirling into new forms, brings an air of evolution and creation to the drawing, with new, imprecise, 'thoughts' becoming clear on the page. This sense of imprecision aids the design process, as it is purely gestural in the same sense as an oil-painter making a gesture on canvas or a sculptor kneading his clay. The same air of reinvention simply does not exist on a computer screen, as the vector line can simply be deleted.

As we move forth into this new age, we must keep this history in mind whilst forging our links with new technology. The act of committing a mark in a medium is the starting point for this interface of thought and gesture. With every new beginning and blank page, we can then use this to explore and examine a statement, both philosophically and architecturally.



Illustration by Marie d'Oncieu

# In Conversation: Looking Back on Semester One

Architecture can be tough at times but it's good to know that you're not alone in the sausage factory. We went around the department asking people how the course is going. There were golden nuggets of laughs and advice, but only a fraction made it to these pages, I wish I could've printed it all! Thanks to everyone in studio and the fourth years celebrating in the crit room for taking time out to talk to us.

Thank you to:

Sara Medas, Ryan Saunders, Helena Francis, Gemma Andrews, David Janosi, James Wright, Samuel Kalejaye, Toby Stafford, Lauren Copping and Issy Spence in First Year

Monica Kessler and Peter Madge in Second Year

Hynn Jae Jung, Georgi Belyanov, Season Tse, Vanessa Mok, Lucy Anis, Adam Sparrow and Freyja Clarke in Third Year

Farah Ehsan, Benjamin Hayes, Emma Thomas, Rebecca Plaza, Jensen Choy, Luke Macnab, George Pickering and Matt Kennedy in Fourth Year

**Interview by Shemol Rahman**

**Photography by Garrick Chan**

**What's your biggest struggle right now?**

Helena Not going out.

Me Are you missing it?

Helena Well, I'm still going to, I'm just worried... [Laugh]  
yeah, cos I like going out.

Me What about you guys?

David I dunno... not stressing about [the] project. I mean  
yeah I know we should consider this fun and play, but  
sometimes I just get overstressed and it just doesn't  
help...

Gemma I'm always scared that I'm just gonna suck at  
everything. Like when you sit in a lecture and you  
don't really understand, and everyone else is like "hm  
hm hm..."

Samuel Struggling? It's probably balancing studio with other  
modules. So obviously I plan to go to a lecture,  
afterwards recap, but then I find myself going to a  
lecture, afterwards coming to the studio every single  
day... so yeah, it's getting that balance, but hopefully  
over Christmas I'll be able to over it...

Issy It's just balancing everything, as in there's so much  
going on in uni... I do the paper, I also do "Impact"  
paper, do orchestra... I dunno, there's just so much  
going on... like skiing... its really fun but it's just like,  
I wish there were three of me! So I can be like, "You  
can be the one who's in the studio all the time, you  
can be the one actually doing lecture work, and the  
other one can just be having fun, doing good stuff all  
the time. But yeah, I wish there were three of me.

Jae Should I be honest? I want to go home and have nice

food and stay in a nice warm place, with a movie...  
that's just a joke! It's just that er, yeah the deadline's  
coming up and we should have something. That  
feeling when you're in the middle of the process and  
you've got [a] deadline, and you've got stuff to match  
up with that, it's kind of stressful to get stuff done.  
It requires lots of self control, there's set amount of  
work can do but sometimes you are very short of  
time so you have to manage your time very well and  
it's very difficult...

Georgi I also feel that... I feel like, in order to be good at  
what you're doing, in a thing like architecture, you  
have to devote yourself 100% of the time. So I feel  
like every time you take a day off or something, you  
just see how this physically is time stolen away from  
your project. So it can be very hard to... wouldn't say  
find a balance between life and architecture, it can be  
very hard to... to continue doing architecture 100%

of the time and have the self discipline from not  
wasting any time, or even not wasting time doing the  
inessential stuff about the project...

Season But sometimes, when you get rest, you see your  
project with fresh eyes so you can improve on it...  
it's hard to get the balance really... but towards the  
deadline you just have to get the work done which, I  
find it quite tiring. I normally doubt myself, like "What  
am I doing?" I question my ability and stuff... I think it  
will gradually improve. And it has improved since first  
year I have to say, but a lot to be done.

Jae Yeah, but it's good, like in the end you have what  
you call a finished, final result. Looking at it you kind  
of feel, "Yeah, I've done it!" That's what makes you  
go again, because you know you've done it, it is  
proven, the thing in front of you... there's a sense  
of achievement. That will make you kind of go back  
into that cycle, like "Oh, I've finished this project,



L-R

Toby Stafford (Y1), Sameul Kalejaye (Y1),  
Ryan Saunders (Y1)

I'm looking forward to the new one" and after the  
first week...

Season ...you're like "Uh, I'm dead!" [Laughs] I know it's a  
cycle.

Jae There is a point where you're kind of like, "I want  
to do it, and I'll be good at it" and then, "Am I really  
good at it? I hate this site, I hate this project, I hate  
my concept..."

Georgi "...I hate my life!"

Jae After a few weeks: "Oh, I've started to like it" and it  
just goes up and down... But that's what's interesting  
I think, doing architecture. You don't really get this  
much of ups and downs in such a short period  
unless you're doing a course like architecture.

**What's something you've learnt this year?**

Helena Time management.

David ... that's what I wanted to say... yeah. And there's  
lot's of things that you can just learn by practicing...  
... yeah, like make mistakes to find out how to  
make... I dunno, learning by making mistakes...  
... yeah, and coping with this...

Toby Not to over-complicate things. Cos both projects  
that we've done so far, done a ridiculous design that  
I can't draw or make and then screwed myself over.  
So my next project is going to be a box.

Ryan That discipline when it comes to deadlines is  
important. That's something I need to get down...  
Have you met all yours yet?  
I haven't met any [laugh]... but I've got time to work  
on that.

**Has this year, so far, met your expectations?**

Monica I try not to have too many expectations for things  
because they'll only get dashed. I didn't really have  
many expectations for this year, and I'd say this year  
has been a mixture of good stuff and bad stuff. I have  
enjoyed the course this year but there've been other  
factors that have made things difficult or whatever... I  
would've liked more time to do everything!

**What does "architecture" mean to you?**

Jae To me, it's like a foundation. You see it every day;  
it's just there... I will probably do something that is  
related to architecture maybe, cos everyone looks  
at it in a different way, but in the end people will kind  
of, expand from this into other things I guess. Some  
people in the end end up being an architect, some  
people could end up [being]... a photographer? And  
then some guy becomes a tutor... some people do  
something else, but it's only a very few... I dunno. It's  
a starting point I think.

Georgi I feel like there's sometimes, this... conflict? I feel like  
some architects go for doing really pretty buildings  
that get a lot of attention and that get published  
around and become famous architects, and they like  
it. And others, they don't want none of the fame, and  
they want to do small scale buildings where they have  
some sort of experience with every project they do.  
You don't care how you promote your design, in terms  
of not having amazing renders or amazing use of  
really original materials, and still doing it very... having  
thought of every little detail in a more conceptual but  
less visually... bold way. And I feel like a lot of us don't  
know what we are.



CCW from top L-R

Adam Sparrow (Y3), Lucy Anis (Y3), Vanessa Mok (Y3),  
David Janosi (Y1), Helena Francis (Y1), Gemma Andrews  
(Y1), Sara Medas (Y1)



#### What does "architecture" mean to you?

**Lucy** ...it's the coolest course to do because once you actually become an architect it's very fulfilling, once you see something that you've... like, one night you had an idea in your head, then all of a sudden... well, not all of a sudden, like three years later it's there.

**James** I think the thing that fascinates me about architecture is that, for thousands and thousands of years, it's developed with humanity. As civilisations evolved, architecture has evolved, and it's reflected that all the way through, it's learned, it's evolved, in loads of different materials, lots of different... People have different design ideas, they have... and architecture has different purposes. It's something that's always there, and it's something will always reflect the people... It's just quite fascinating to see such a variation and be part of it, because a lot of people, they just move around within architecture, and they experience it but they don't quite fully feel it. But when you really look into it, it's really fascinating.

**David** Well, I came here to get the answer...  
**Helena** Yeah, yeah, good answer...

**David** ... I mean I have some feeling... I dunno... really dunno. I mean, I think we have to have some experience before we can say what it is.

#### What advice would you give to a large group of Architecture Students?

**Lauren** Don't do architecture.... why you laughing?

**Sara** Do as many sketches as you can. Because it's so

important, as the moment in which you transfer something that's in your mind on a piece of paper, so it's like a magic moment in which you are realizing something, and that little sketch will become then a great building, as it happened with the... what was it... the Frank Gehry, Bilbao Museum. He just drew it on a small piece of paper and then you have a museum, which is a great piece of art. Yeah, so sketches. Sketches sketches sketches.

**Ryan** Be wary of scalpels, they're pretty sharp.

**Issy** Buy headphones. I just put them on and then I just power it out, otherwise I'll just run around the studio like "Yeeeaah!"

**Me** Same as me, if I'm in studio, I just have my headphones on...

**Issy** You just put them on and then you zone out... yeah, get in the zone. So yeah, headphones.

**David** Keep calm and dream buildings.

**Me** That's good. Someone needs to make a poster. I just came up with this last night, with my friend, chatting, She's at Cambridge, First Year Architecture, and were like discussing how tired and stressed we are and stuff... yeah, and then we came up with this. Today I walked in, and one of the girls desktop is "Keep calm" and under the sign is "I can't be calm, I'm an architect" [laughs]

**Jae** I've got really good advice. Be really good at Auto Cad, or a drawing program, so you can sleep. Like, if you are really good at it, you are so fast at drawing plans, sections, elevations, that will save you lots of time, and that will give you lots of time to sleep. One day... draw

L-R  
Issy Spence (Y1), James Wright (Y1)



**Adam** all the plans in one day... joking. It takes more than one day, but if you're faster, you get more done.

**Lucy** Don't panic.

**Freyja** Don't compare yourself so much. Focus on what you're doing, cos I used to... I still do, I'll be honest... you walk around, and you see, "Oh my God, they're doing so much, I haven't done this, I haven't done that!" Sometimes you just need to go back to your own project, just focus on what you're doing, that's what everyone else does... so don't compare yourself so much.

**Freya** ...I definitely agree with Lucy. The last project, the night before our hand-in, people were running around like, "I've done 70 pages for my brochure!" I sat there, freaked out and stayed up all night trying to do so much. Then when I had my feedback with Daniel [Wong] he was like, "Yeah, you didn't need to do half the stuff, you did too much." So that's a really good example, of just not listening to other people, its so hard not to compare yourself to other people, but you really have to try and make sure you don't...

**Adam** Stay secure in what you're doing...

**Freyja** Yeah, you really have to try to be confident. It's the hardest thing, but you really have to stick to yourself. No two projects are the same, so if you look at what somebody else is doing, it doesn't have any reflection whatsoever on what you're doing yourself. You work so differently, everybody has different concepts, different ways of working. Nobody's the same...

**Adam** You can definitely learn from other people, but just don't try...  
Don't try and replicate them.

**Me**

**Lucy** We interviewed a few first years at the start of the week, and one of their main struggles I guess that they mentioned was work-life balance...

**Me** Oh my God, don't work in first year, it's the biggest regret I've had! I took it way too seriously, a lot of people did. It's meant to be fun, who cares... you're making a sculpture for the first month of your life [as an architect]... they shouldn't be too stressed, but also you shouldn't be too free because then you're gonna be shocked when it comes to second year, you're gonna be shocked...

**Me** How are you finding work-life balance now? Better or worse?

**Vanessa** My life is work...

**Lucy** You get used to the fact that you're not gonna have any life anyway...

**Vanessa** You just wake up preparing yourself, "I will not have fun today, or ever!"

**Garrick** In first year, I used to moan a lot about not being able to go out and have fun, and not being able to make new friends in uni. I'm in uni, and I'm not really making friends that [are] outside my course, it's really strange. But now you just get into a mindset that, "Yeah, I do architecture... I make friends with buildings instead!"

**Vanessa** I remember a tutor once said, the longer you stay in architecture, the less non-architect friends you have...

**Garrick** I think some people are still managing with work though...

**Vanessa** Yeah, there are the odd ones...

**Garrick** I like how the "normal people" are the odd ones...



L-R  
Sachi Oberi (Y4), Emma Thomas (Y4), Benjamin Hayes (Y4)



L-R  
Farah Ehsan (Y4), George Pickering (Y4), Luke Macnab (Y4)

**George** ... you need to build up a bit of a skin, and if your friend goes, "No, that's stupid", don't cry, be like "Maybe they've got a point" or "No, I'm defending myself"...

**Luke** ... and the next second, you could be talking about previous things you've done in your life and it's a completely different dynamic cos then you're friends and it's ok. One of our lecturer's says: "You are not your work!" That's a phrase! He also said, "Death is your friend" so he's said many things. "Integrity is like virginity, you either have it or you don't." Look forward to those lectures! Alex Wright!

#### What is it that you got out of placement, if anything? Any tips?

**Vanessa** I was... I can't say I'm lucky, but I can't say I'm unlucky either. I started off working in an architecture firm that sent an email to uni and said, "We need more people", so I was like "Ok, I'll go." When I got there, I realized it's not really a nice practice, and then we went on strike...

**Me** Strike?

**Vanessa** ...and then eventually, they started their own company, so I ended up helping them... so it's like a really long story! It was really fun!

**Adam** That is amazing!

**Vanessa** It's an international firm, so they... all the staff are English speaking, and the boss is a Chinese boss. So he's trying to run it like... a factory in China, you have really long hours, never had breaks and he'd always lie to you about giving you a day off and it never happened. So, all the staff are from overseas, and they have more respect for human rights, so everyone was like, "This is not right, I'm gonna leave"

**Lucy** so I just left with them. But it was definitely really fun. I think I learnt how to be a lot more efficient and patient. Cos at the firm I worked for, on a good day I worked for 14 hours. In Japan...

**Garrick** I've heard Japan is really tough on working hours... They are... they told me that before I went, but when you go you actually know why they are so much better than a lot of people, it's because they're really efficient... like at work, I had to sign this contract, you're not really meant to talk about anything outside the project during work hours, and you only speak, basically if you're an intern or something, if you have a question or if it's something related to the project... but they're also really nice and they're also some of the most polite people I've ever met, but they're a bit... stricter than ours... but they're nice and they're very creative, nothing stops Japanese firms from doing anything they wanna do really...

**Adam** ... the nine to five thing every day, it's actually got me in a rhythm to work here more. In first and second year, I had this patterns of wake up at 2pm, go to sleep at 4am, which is unique, but it's not especially helpful... yeah. I've got a healthier pattern going on now, it's got me in the correct rhythm I think. ... I think the key to actually get a placement is persistence and organization. So I had an Excel spreadsheet. Every place that I applied to, when I applied to them, what response I got, when I followed it up...

**Lucy** Yeah, you need to follow up. Make sure you follow up. They'll be like, "Oh, we'll reply back to you, we'll have a look at your portfolio. Months later, nothing! So you need to follow up, be like "Hi, you guys had a look? Blah blah blah..." Basically, just nag a little.

**Adam** Persistence pays off, you shouldn't panic if you've got to April and you haven't got something yet, cos it can still happen.

**Vanessa** And sometimes, the people who have done the first few months, when they've finished the practice will want to replace them, and then you can go in...

**Georgi** I remember in the guide for our placement from Dyfed... there was one really good advice: "Be really careful with your placement because a placement can make or break your feelings about architecture." Oh yeah, and also be careful with what you choose because some people got bad experience because they weren't treated very well, as in they didn't get paid and just did loads of work but just got yelled at... it's just not good. So, if you're not happy, I won't say quit but step back...

**Season** You have seven or eight months to do three, six or three + three [months], so you have some flexibility. If you feel like you don't like your first place but you feel like you've done too much to give up now, you just finish your three months and then apply again somewhere else.

**Georgi** It's worth it.

#### Architects and engineers working together?

**Gemma** I actually didn't mind it. I think at the moment it's been like... the stereotypes, because we come here with the stereotypes in our head, that a lot of people are saying... actually, they did do a few annoying things, like when we were designing the sculptures, and then

like... actually no, cos even now I'm saying it when I think back they weren't actually that... I got on with the architect well. I think that people want you to not get on...

**Lucy** ...some things are just hideous. Some things that they come up with are really ugly, and you just don't want that in your building. But obviously you have to say what your structural strategy is and you get graded on that, and it's also, they have to do something... cos you know, architecture first three years don't count, but it counts for them. So this mark counts for them. We did really well, but the only way we did well was, we just nagged them to make sketches of their ideas... because engineers work with calculations, all this stuff that no one else understands, and then you put it in your brochure and the tutors don't really understand it, so "Make sketches, do sketches!"...

**Vanessa** ... they don't have the habit of documenting their work...

**Lucy** ... so it's all in their head and on the calculator....

**Vanessa** ... when you talk to them, they will give you a lot of terminology that you don't even understand, so you don't know how it works, you have to keep asking them to do sketches about how the structure works, like do a section and stuff...

**Adam** The diagram that our engineer made, was actually made in Microsoft Word. It actually looked really good though! I have no idea how he did it.



CW from top L-R

Jensen Choy (Y4), Rebecca Plaza (Y4), First Year studio,  
Issy Spence (Y1), Luke Macnab (Y1)



#### Fourth Years @ Brochure Presentation

Me How are you feeling right now?  
Farah I'm feeling super! No I don't drink! This is white... water ... I've had the time of my life this week so sad it's over. Yeah, I want to do Basil Spence every day. I do, I honestly do, I've had so much fun! The thing is, it's all about group work. When you're doing individual projects, you'll just feel like, "Sh\*\*, I'm f\*\*\*ed!" And then when you're together you're like, "We're f\*\*\*ed! We're all f\*\*\*ed together!" It just feels so much better!

Ben I think it's... interesting, because we have these placements, to see what people work, cos everyone has a different experience at their placements, so...  
Me I guess everyone brings something extra...  
Emma Yeah, you have unique skills, and your skill is in a certain expertise, like Ben, he does the visuals, that's what he did a lot of in placement. You can, that's obviously what you did on placement, that's where your focus is at... so everyone has different areas and it's really interesting to see... it's what you're passionate about I guess...

#### Talking to the Basil Spence winners

Me How did you win?  
Jensen I dunno!  
Rebecca We worked well together. We're... we're still friends! If you see some of the groups... a lot of people are very good on their own but when they start working together it doesn't work that well. I think what we did really well, was work together. We picked up where the other ones left off...

Me Is that with the engineers as well?  
Rebecca Even with the engineers. Just everybody picked up together! ...To be honest, nobody ever thought we would win. There were like 10 people in our crit whereas the crit before, the whole year was there. Nobody gave credit... we were the dark horse, the underdogs, when they announced our names everybody was like, "What the f\*\*\*?" As soon as we broke off, we went to our corner to clean up and get everything off the wall, and loads of people were there asking us questions like, "What did you do? How did you win? Tell us about your project! Nobody's heard of your project! Where did it come from?"

Garrick How does that feel?  
Rebecca Really good. More than anything, it was the teamwork! We worked so well as a team.

Luke Basically, when it all gets screwed up in fourth year, look at how happy everyone is now! You'll get here eventually!

George Everyone's knackered yet so happy!  
Luke Knackered, slightly drunk and really happy, so it's all good!

How've the past few weeks been?  
Imagine really wanting to go home, but never actually going home... and never sleeping, and just getting... and being whipped, pitch!

... more and more sad but happy you've worked so much. Like, "I wish I could go home, but I've got to do some much work! Ah, I really wanna go to sleep, but I've done so much work it's brilliant!"  
You get schizophrenic within these last two weeks.  
I think everyone develops a slight bipolar disorder...

Me How do I look for a good engineer?  
Hans Chill out. Just chill out, it's hypothetical, it's not real life. You're not designing a building that's actually gonna be built.  
Paulina It is hypothetical...  
Hans It's all hypothetical...  
Me What makes an epic engineer?  
Paulina Him.  
Hans You've got to understand sustainability, and you've got to understand embodied carbon. You've gotta reduce your embodied carbon and embodied energy in everything!  
Paulina An engineer that can understand the architecture is really good!  
Me What about the other way around?  
Hans The same! You've gotta understand the architecture and take it to a lower embodied carbon. You can do everything with low embodied carbon...  
Matt It only works whilst you're considering the other field, otherwise you're constantly going together with ideas and then they'll go, "That won't work"... you'll kind of bounce. It's better if you're both agreeing...

#### Other things people said...

Toby We were practicing this the other day! How to be really harsh to everyone. Or preparing people for their crit by telling them that... everything's just sh\*\*. "How does this look?" "Sh\*\*." That's how we handle every situation.

Helena I, erm, I like studio, I don't like lectures.  
Me What's there not to like about lectures?  
Helena Sunpath diagrams [laughs]

Toby We're all poor because we're spending all our money on model making supplies from Fresh. Lauren came in with £1 in her bank account the other day to last her two weeks.

Me Are you managing to stretch it out?  
Lauren I've got more money today. It's already gonna go in like two days.  
Toby All on materials. Materials and alcohol.

Jae The ghosts of the architects of this building, Alison and Peter Smithson, come out at 3.33 in the morning, they come into studio and wander about.

# Architecture without Architects

So little is known about architecture before the advent of architects – hardly any documentation exists from that time and fewer examples still survive.

**By Kelly Ng**

We then find ourselves making assumptions of what buildings were like, often inaccurate. However, they had:

## 1. Adapted nature

Starting out by making small adaptations to cave dwellings, man soon progressed to rock-cut architecture. A long-lasting practice, the oldest originates from Mediterranean islands around 3000 BC. They were mainly built as temples, tombs or housing; carved out from the roof and working downwards to avoid falling chunks. Entire villages and cities have been carved out of rock, no small feat considering the tools of trade back then.

Tree houses were also common, height providing protection from floods and other living beings; be they human or animal. In comparison, there have also been people in Africa who have made the insides of trees their home. Forget tree houses, how cool would it be to live in a tree, 9 metres in diameter and still alive?

## 2. "Air-conditioning"

Wind catchers were often used in western Pakistan to create natural ventilation in buildings in an otherwise unbearably hot climate. These were basically towers that lead into the heart of the building, with one face left open at the top. This opening would face the direction of the wind, bringing fresh air into the building. Depending on the situation, these devices could be altered to adapt to multi-directional wind by creating more openings.

## 3. Underground living

People as early as the Troglodytes have made homes underground; detached dwellings of this type soon evolving into whole villages connected by tunnels. They were found to be preferable over above ground accommodations perhaps for the almost constant interior temperatures all year round and their potential for concealment of masses. Enter Derinkuyu; an underground city capable of housing tens of thousands of people, consisting of eleven levels, complete with chapels, food storage areas, stables and cellars. Used to house refugees in the 7-8th century BCE, it most certainly shows a formidable amount of ingenuity to have managed such a feat.

## 4. Tents

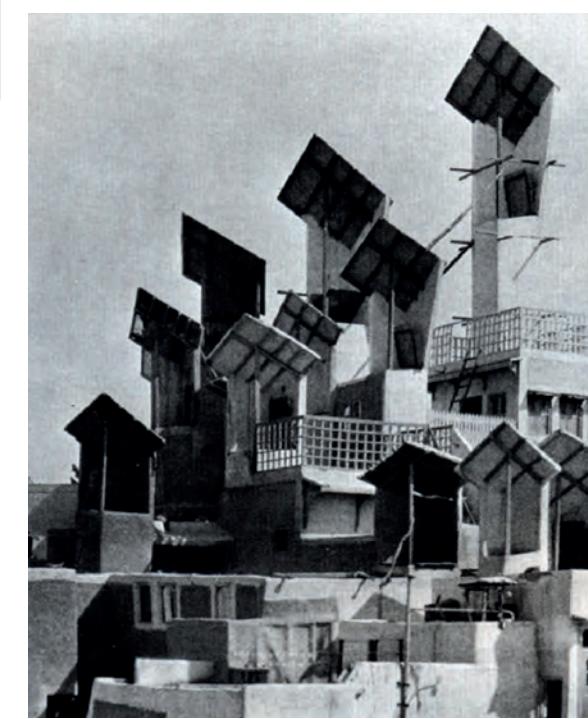
Used by nomads and made of differing materials, depending on culture or region. Native American teepees used skin, held up by wooden poles that defined the boundary.

Constructed in a conical shape, they were typically built with a hole in the middle to allow smoke from fires to escape.

Similarly, yurts in Central Asia were supported by a lattice wall and then covered in felt. Kept in compression by the weight of the coverings, this structure could be constructed from parts in two hours.

## 5. Prefabrication

Stone pieces cut with precision that interlock have been found in Bolivia, perhaps evidence of prefabrication carried out over 17,000 years ago. Closer to home, the construction of Sweet Tracks causeway in Somerset was speculated to have involved timber sections that were assembled off-site. Parts of buildings were prepared separately before being fitted together by the Sinhalese people over 2000 years ago.



It's an exciting time in Northern Irish history. If you take a stroll through Belfast today, it's hard to escape the smell of change and regeneration in the air.

**By Joanna Burleigh**

The social structure of the city is changing, and money is being pumped into the public sector to establish Belfast as a worthy capital city of Northern Ireland. After its checkered past, it's about time.

The troubles spanned from 1968 - 1998 within northern Ireland. Its title underplays the violence which escalated and divided the country in two, with each side suffering immeasurable tragedies.

Tales told of my parents' childhood send shivers down my spine, but are thankfully of a northern Ireland which is a world away from the one I grew up in. In today's world, bombings, shootings and violence are no longer what our country is known for. Our legacy is being redefined to one of united peace, with stories of giants and the titanic thrown in for good measure. We're currently en route to rebuilding our society, starting from the ground up. In some cases - quite literally.

As part of the 2012-2015 investment programme established by Belfast City Council, £150million will be pumped into the construction sector. Many of the regeneration projects are based within local communities, which will benefit those living nearby. Access to health opportunities and supporting local businesses is one of the top priorities, with local architecture firms employed on the projects.

“Our legacy is being redefined to one of united peace, with stories of giants and the titanic thrown in for good measure”

This programme, combined with projects from the millennia has changed the social set up of Belfast city centre. Thirty years ago the inner city was defined by the working class. Small terraced houses, which had originally been built for the factory workers were divided by a massive peace wall, separating the Shankill and the Falls from sectarian violence. The further from the city you travelled, the more wealthy the land became. Terraces transformed into semi-detached, which morphed into larger

detached houses. The middle class lived on the outskirts of the city, and travelled further out of Belfast for social and shopping complexes, such as Forestside.

However now, in 2013, Forestside is slowly dying away, as the regeneration has established wealth and an accepting social community within the city centre. The shopping complex Victoria Square is a main consumer giant within the city, the Odyssey area provides wonderful social venues, and the arts based buildings such as the MAC and the Lyric shine as some of the more thoughtful projects in the area, and UK architecture.

The titanic masterplan is the largest single waterfront regeneration project in Europe. It potentially creates 12,000 new homes for 26,000 residents, along with 20,000 new jobs and reclaims a once industrial area of Belfast which is still the base for Titanic shipbuilders Harland and Wolff. Apartments, hotels, educational campuses and even filming studios are being brought to life in the

Titanic quarter, which is regenerating the NI filming industry. Tourism is thriving, but for some the Titanic Quarter stands as a symbol for the city's lack of foresight in regeneration. Local architectural firms are worried about the directionless path city planning is taking, which seems to be overshadowing key features such as height guidance and social housing. There are still gaping holes in the land development of Belfast. If all these holes were combined, they would amount to the same area as the city centre itself.

So perhaps Belfast hasn't got a perfect vision of where it is going in the future, but it's a city which is finally moving forward with the rest of the UK, and is creating some wonderful pieces of design. The next 50 years will be crucial in its regeneration, but a promising start has been made, and I for one can't wait to watch the future of the area unfold.



Titanic Quarter redevelopment

# History: The Parthenon

Beginning. Is it possible to talk about a pure beginning in the History of Architecture? It might be more appropriate to consider the History of Architecture as a continuous flow in the use of the same architectural motifs

By Sara Medas

Assuming this position to describe it does not mean that becomes to be either homogeneous or unalterable. On the contrary, the History of Architecture has been marked by key architects who designed milestone buildings which changed the course of this continuous flow. The classical Parthenon can be considered one of those buildings as it has become a point of reference and a source of inspiration later in time both for other architectural movements, such as the Renaissance, and for leading architects such as Le Corbusier.

The majestic temple of the Parthenon stands at the top of the Acropolis and from its south steep wall dominates the old city of Athens. In order to approach it, one has to climb up through a steep pathway which leads directly to the ramp in front of the Propylaea<sup>a</sup>. Here the "architectural promenade" towards the Parthenon begins. Steps, Ionic and Doric columns slowly guide the beholder into the main body of the Acropolis. The perceived feeling is neither of order nor of symmetry as the side wings of the Propylaea could not be symmetrically designed because of the cliffs<sup>d</sup>. A full sense of order will come as soon as the beholder will approach the Parthenon.

The way in which one approaches the Acropolis left an indelible mark in the memories of the young Jeanneret. In the articles published in 1920-1921 in "L'Esprit Nouveau" he explained that with these words:

*"The apparent disorder of the plan could only deceive the profane. The equilibrium is in no way a paltry one. It is determined by the famous landscape which stretches from the Piraeus to Mount Pentelicus. The plan was conceived to be seen from a distance: the axes follow the valley and the false right angles are constructed with the skill of a first rate manager... The spectacle is massive, elastic, nervous, crushingly acute, dominating... The Greeks on the Acropolis set up temples which are animated by a single thought, drawing around them the desolate landscape and gathering up into the composition<sup>g</sup>."*

The same idea of "architectural promenade" can be found in the monastery of La Tourette with regards to the axial views, and in the Chapel of Ronchamp regarding the relationship with the landscape. The Chapel dominates the hilltop of Burlémont in the Haute Saône region<sup>f</sup>. In order to approach it, one has to climb up the hill through a steep road which then leads to a narrow little path which gradually reveals the white majesty in the middle of a meadow<sup>f</sup>. The monastery of La Tourette lacks a kind of promenade as the one of the Propylaea but its organisation was

developed through a combination of both frontal and three-quarter views and longitudinal and transverse movements<sup>g</sup>.

As the beholders find themselves in front of the Parthenon, they will realise the imposing elegance of its colonnade which inspires awe and finally a sense of order and symmetry. It is a peripteral octostyle temple: peripteral because it is circled by columns, and octostyle as there are eight columns in both ends and seventeen in the other sides<sup>c</sup>. The columns with their entasis and elegant alternation of flutes and arris will then lead the attention towards the engraved metopes and sculptures of the pediment. The use of the column and the colonnade as a focal element of a building will occur repeatedly in the History of Architecture and in most cases they were both used as elements with a classical meaning. During the Renaissance many of the main features of the classical architecture were taken as a starting point to set the rules of a new architecture. The column, especially for L.B. Alberti, was considered the main ornament of a building, an element which was able to add beauty and harmony to the whole<sup>b</sup>.

The column with all its proportions becomes one of the main starting points of his architecture. Although Alberti did not study Greek temples, he wanted his architecture to be in harmony with the classical tradition. He mostly relied upon Roman architecture which did not consider the column as a single structural unit but he never combined an arch with a column, which was always used with a straight entablature<sup>b</sup>. An innovative approach to the classical architecture was shown by Palladio who was the first to apply the front of a classical temple to a private house. The reason was because he wanted to add dignity and a much deeper value to the domestic architecture of the Italian nobility.

Apart from the Renaissance, whose main purpose was to give dignity to classical architecture after the Middle Age, generally considered as a dark period, many other similarities can be found in the architecture of Le Corbusier and that is not by chance. The young Jeanneret spent three weeks sketching the Parthenon to understand his structure and its composition<sup>h</sup>. All these early studies became strong architectural ideas which characterised his architecture and his personal architectural philosophy. He strongly refused to reduce the Parthenon to a category which bears no meaning<sup>a</sup>. For him Classical architecture, and the Parthenon in particular, was the source of a pure and perfect expression of architecture. The Villa Savoye is an expression of a pure form, of a deep sense of space, of a clear expression of the "machine à habiter" and of the use of classical elements in an extreme abstract way<sup>i</sup>. In the Villa the use of the colonnade and of the column, become a modern and slender pilotis, can be taken

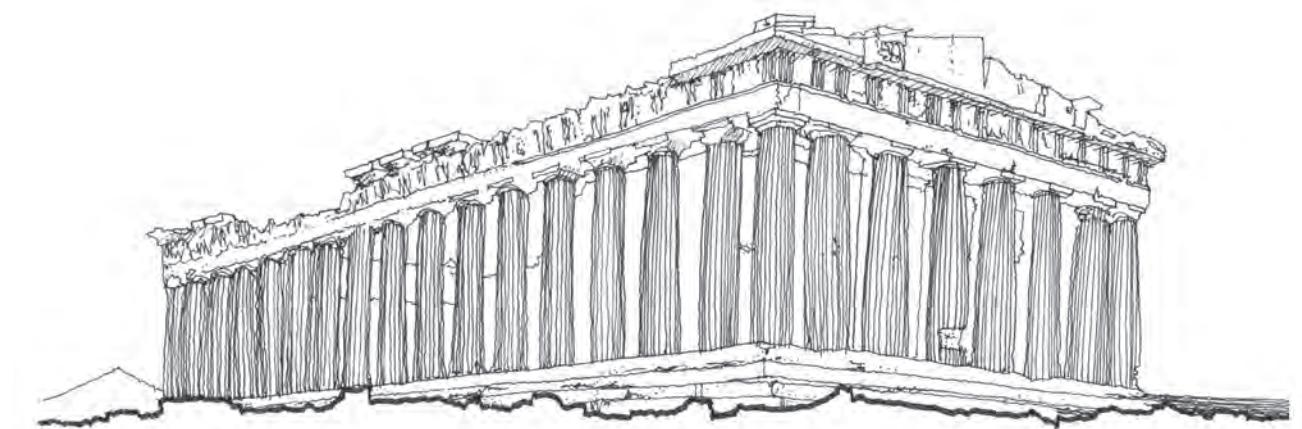


Illustration by George Pickering

as an example of how classical elements can be reused and reinterpreted both in their function and in their meaning in order to break free from a set of rules. As one approaches the Villa for the first time, they will get an impression of a sinister sense of symmetry given by the combination of a white box lifted up by a series of white thin pilotis receding behind the façade<sup>b</sup>.

On entering the Villa, a visitor will find the same types of pilotis seen near the entrance and an attentive eye will notice that one of those is square in shape and not round<sup>b</sup>. The Villa Savoye, a perfect expression of the "machine à habiter", can be considered modern and classical at the same time. Many aspects of the classical language of architecture have been reused and reinterpreted in a personal way according to his ideas of the machine age. The entrance, placed at the far end of the building, recalls the promenade towards the Acropolis, the contours and the geometries are defined as clearly as in the Parthenon<sup>b</sup> and the strip window recalls the beautiful triglyphs of the temple<sup>b</sup>.

The reason why it is possible to find so many parallels between the classical language of architecture and other architectural movements is because the European culture has given more and more importance to the ruins and to their meanings after the end of the Roman Empire<sup>b</sup>. Differently from the Byzantines, who considered themselves the legitimate successors of the Roman Empire, the Europeans considered the Classical period as finished<sup>b</sup>. This is the reason why all the ruins from the ancient Greek and Roman tradition became the source of a classical architectural language from which it was possible to gain knowledge<sup>b</sup>. The classical language always reappears in different times both equal and different to itself as it is reinterpreted according to current historical periods and cultural settings<sup>b</sup>. Ernst Howald referred to the revival of the classicism as the rhythmical form of the European culture<sup>b</sup>.

The Parthenon can be considered not only as the highest expression of the Doric order but also as one of the greatest achievements of the classical tradition. Every single element finds its place in a complex architectural composition which expresses order, beauty and harmony at the same time. A harmonious combination of voids and full gives life to a play of shadows and lights which shapes all the profiles making them appear stronger against the sky. Throughout the centuries it has been taken as a model of the ancient classical tradition and as a source of inspiration because of its simple and elegant shape. One of the

main characteristics of the European culture is in fact the eternal revival of the classical architecture in what can be defined as a biologic-parabolic model<sup>b</sup>. The classical language of architecture will always be considered as a repertoire of knowledge for combining shapes, creating movement and shadows, expressing feelings and integrating architecture within nature. For all these reasons the Classical language of architecture will be always de-signified and re-signified in a cyclical way according to different historical periods<sup>b</sup>. The Parthenon has been and will always be a model for the History of Architecture regardless of further technological discoveries that will happen in the future.

A great master used these words to describe it:

*"The Parthenon is, by definition, the great monument, meeting-place of all possible nuances. It is a true sculpture and not just a building. The number of "optical corrections" due to its situation on a slope of the Acropolis, and to the intensity of the Attic light, is manifold. (...) I repeat: the Parthenon is a grandiose piece of sculpture inscribed into the landscape of Mount Hymettus, Mount Pentelicus, the Piraeus and the Isles, not a construction based chiefly and of necessity on the recurrence of numbers, like, for instance, a cathedral (vaults and flying buttresses), the Eiffel Tower, or, simpler still, the Ubité d'Habitation of Marseille (textural significance [texture] of measurements)<sup>j</sup>."*

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# A Fresh Start

## Interview: Stonewood Design

Stonewood Design LLP is a vibrant, young practice founded in 2010 and working out of a beautifully converted cow shed in the village of Castle Combe, a half hour's drive from Bath. Emaad Damda, currently finishing his MArch placement there, chats to partners, Nicola du Pisanie and Matt Vaudin.

### **So our theme is new beginnings. Let's start there! Where did you begin?**

I studied in both South Africa and England. When in England, I completed my Part 1 at Bath Uni with a third year exchange in Delft in Holland. I had the best time at Bath but then decided that I wanted to be challenged in different ways, so I decided to move to London and complete my Diploma at the University of East London. It's a very different experience studying in London! In my year out, I worked at Arup Associates where I met Matt. They actually sponsored my Diploma and employed me for two years after I graduated. Then marriage and babies brought us back to Bath [where] we both worked at Feilden Clegg Bradley Studios.

### **When did you decide to start up on your own? What was your "aha" moment?**

I was working at FCB and had been there for approximately five years. I was friends with Ben and Matt [directors of Stonewood Builders in Castle Combe] who had actually worked on the conversion of the FCB offices. Over pizza one night and a few glasses of wine, Ben said to me [that] I should come out to their offices to see the finished building (I had helped with the design when on maternity leave). And Ben suggested I choose a desk!!

One thing led to another and a few pub meals later with both Ben and Matt, we decided to give it a go. It felt like a good model - I could piggyback on a lot of the setup (like a desk, admin support, ICT consultants and in-house business guidance!). But more importantly, was the inside track to projects; Stonewood Builders were often being asked by clients for architect recommendations.



The office: Self-designed, generously day-lit studio. Everyone sits together for lunch, with a wood-burner in use during the winter

It soon emerged [though] that I could not be an employee of Stonewood Builders, but needed to form a separate company. So that happened after two months. From a liability point-of-view, it was needed from both parts, but also it was vital for us to create independence and have the vitality and robustness to work on independent project with other builders..

### **Could you describe your first year as sole practitioner? What was/is the relationship with the Builders? I guess it was a bit of a culture shock!**

Culture shock is an understatement! But it was amazing to have a desk in the Builders' office. I learnt so much so quickly from so many lovely people that never patronised me for not knowing the difference between purlins and rafters! It was just such a different architecture going from new build school projects to listed building residential work! But I learnt so much so quickly and being in the Builders' office definitely aided that process! The first year was amazing. If I think I had known all the things I didn't know before I set up, I would never have done it. Blind ignorance and fast learning! I got the first project confirmed on the first day of me being in the office! It then carried on from there and I soon realised that I could not do everything on my own. So [I] employed a year-out student three months in. Now three-and-a-half years later [and with our own space], we are an office of six with four architects and two students from Bath. It's been an amazing journey and so far so good. But you can never sit back. Always look forward and keep agile, and change as factors change.



Countryside setting: Next to a field, just across from Stonewood Builders

**“...the main aim is that people are happy and confident in the office. When you are both, you learn the most and produce your best work.”**

### **What is the best thing about running your own practice?**

### **What have you learnt in the last few years compared to working at Arup or FCB?**

Both Matt and I find it far less stressful running our own practice. There are other things we worry about but it's not stressful (yet!). Being your own boss is liberating as you decide to change something that is not working within a few minutes (perhaps a slight exaggeration but you get the gist - it's very agile!). There is such a buzz when the phone rings or you get an e-mail from a potential client. It's super fun and exciting, making things happen like that.

### **How would you describe the team and the type of work you guys are currently doing? Favourite projects so far?**

We currently have six people in the office. Four architects (well, one just completing his Part 3 at Bath) and two year-out students from Bath. It's a really good mix and a good vertical split of experience. We try and approach all projects as a team where we are honest about our strengths and weaknesses and we all pitch in when someone is a little out of their depth. We hope that with this open honesty, we get a better project result.

We all eat together at lunch. We take it in turns to cook. This is both practical and ethos-related. Richard Feilden [late founder of FCB] believed that eating together was key to a happy office - a time to sit and talk and get to know each other. There's never a conscious effort to 'create' a certain atmosphere - that comes from the people in the office and the events that are happening that day. But it's mostly positive and upbeat and relaxed. As employers, the main aim is that people are happy and confident in the office. When you are both, you learn the most and produce your best work.

In terms of projects, it's mostly residential but we want to move into other sectors. We have several projects in the office at the moment - one, for example, a small-scale private gallery within a restored Cotswold barn. On site, we have a garden studio set in the landscape, as well as a nice contemporary house in Bath. We'll see where we go from here!

### **Stonewood Design have developed a good relationship with the University of Bath. Do you see this contributing to the future of the practice?**

We have developed a good link because of Dan Wong [current



A growing practice: pictured: Matt V, Nicola and Matt G

3rd year Studio Leader] who has helped us find students to work with us. Dan and I worked together at Arup Associates and he was the most amazing teacher then, and I think his students are very privileged to have someone so knowledgeable and humble who puts the students first! Matt and I have started critting on third year projects. We've both loved the opportunity and it's a good learning process for us as well!

### **What (or who) are the biggest obstacles facing you going forward? Any new year's resolutions for the office?**

I think the planning process is such a risk in any project. It's the one part of the process that you actually cannot control. As the kind of project we get involved with gets bigger and more complex, so does the planning side, [which] gets more complicated and often protracted. We often use planning consultants to help guide the way through the more challenging planning projects. They are worth their weight in gold!

In terms of clients, our priority is to really get to understand the client inside and out. Once you have this understanding and trust, you can do good things together (it's the "together" bit that's important).

### **What advice would you give to the ambitious young souls who dream of setting up their own studio?**

Architecture is such a subjective thing that no matter what you do, there will be people who criticise it. The same relates to studying. You have to follow your heart and your instinct. You then have robustness to your designs that you can defend.

There are so many ways to start a practice but the only constant is you, and your ambition and energy. But don't feel like you need to rush into running your own practice. Experience in other worlds is often a good basis. I know I would never have had the confidence or the knowledge to start straight after college. But then having said that, there are some amazing young practices out there who have just gone for it from day 1 and are doing super well. I think it so depends on you.

**That's all for now, thanks very much for taking the time to speak to us... we look forward to seeing you around the studios and crit rooms in the future!**

More: [www.stonewooddesign.co.uk/](http://www.stonewooddesign.co.uk/) @StonewoodD on Twitter

# The Beauty of Scaffolding

A lovely day in London. Camera strapped around my neck and I'm strolling near Ravenscourt Park, ready to take some golden shots of some pre-20th century housing. Ten photos later, I decide to look through what could make a nice series of cheesy postcards, but wait a minute – what's that horrific metallic beast in the background? How dare it ruin my picturesque pictures? 'Balfour Beatty'? 'Laing O'Rourke'? 'Skanska'? Oh I see. It's a construction site.

By Yacine Abed

When a building has to go through the inevitable process of being built, the final product is usually all that matters, visually speaking. The stages before the last screw is screwed are in most cases given zero aesthetic attention. This would of course make sense to the logical man, as the construction process is only a temporary one. Fair enough, but how temporary is temporary? Six months? Two years? Construction sites can damage the beauty of an urban landscape, and by the time a building is finishing up in an area, three more have just started. So even though the construction process of a given structure is temporary, the presence of scaffolding in any urban setting is pretty much permanent. This isn't about the individual building, but rather about the collection of buildings that are caught in our field of vision.

Fine, maybe I was being a bit harsh suggesting that most architects and construction companies give zero aesthetic attention to the construction process. Quite a few actually make some sort of effort nowadays. Whether this effort is conscious or not, I don't know. Most just go for the cheap and easy trick of sticking a large board outside the construction site displaying the computer rendered images of the building that is to be. Poor effort I would say; it's a two-dimensional small-scale approach that frankly doesn't make up for the huge heap of steel, cement, and dust behind it. They may as well install a big billboard saying "Sorry for the mess". A handful of cases go the extra mile and hide an entire face of the site with a full-scale two-dimensional image of the upcoming building. Again, the two-dimensional thing doesn't do it for me – it makes me feel cheated. These cheap solutions are not integral to the construction site, and therefore not worth it in my opinion.

Thankfully there are some people out there who hold this issue to heart as much as I do, and who make a more appreciable effort to make the construction site that little bit more photogenic. And effort doesn't necessarily mean spending more money - far from it. These people come up with cheap, straightforward methods that brighten up the average citizen's urban experience. Eugeny Chichvarkin, the owner of a wine shop in Mayfair, London, could not stand the ugliness of the scaffolding outside his shop and the neighbouring boutiques, so he decided to contact the construction company to suggest a change. Plants and flowers. The scaffolding is now completely covered by contained jungles of vegetation at the base, with the remaining steelwork left untouched but seemingly bursting out of the greenery. A very provocative display that could without doubt collect negative views as much

as it could collect positive ones (I would hope more of the latter), but at least it gets people thinking and commenting. It becomes a big work of art rather than a disruptive metal frame. It almost feels permanent.



Eugeny's genius: A shopkeeper's solution to monstrous metalwork.

Looking at the subject from a slightly different point of view, the raw materials and skeleton of a building can in fact be quite beautiful if they are to be seen with an inquisitive, intellectual mindset. After all, almost every individual component that constitutes the structure is exposed, and an appreciation for the complexity and ingenuity of what is being created can therefore take place. Now if we were to go back in time to the 1950s, we would immediately notice that construction sites look much more refined and somewhat easy on the eye. Why? Health and safety regulations. Or rather the lack of. Nowadays they can't lay a slab without first surrounding the area with blue, red, and yellow signs reminding you that you need to be wearing a helmet. Whilst back in the good old day the authorities were much cooler, and the builders didn't need to take so many precautions, which meant the building's substructure could ultimately be observed in its purest form. An unspoilt skeleton. Photos taken of Mies Van Der Rohe's Lake Shore Drive apartments being built in 1950 depict this perfectly.

So even though your average horrific construction site is always lurking around the corner, an investment should be made into making it, well, non-horrible. Not so much of a financial investment, but rather an investment from the heart to allow the surrounding completed buildings to rest in a serene, photo-worthy setting.



Lake Shore Drive apartments under construction in the 1950s. An unspoilt display demonstrating the simplicity of how it all fits together

# The Fall

A Film Review by Joanna Burleigh

The Indian director Tarsem Singh creates a visual feast seldomly found in Western pictures, in his first movie since his debut 'The Cell' 2000. The sumptuous richness has been amazingly untouched by CGI, instead, the special effects are created by heightening reality in subtler, more intriguing ways.

Resembling early cinematography, a series of images are sewn together with the most delicate of narratives. The story revolves around a hospitalised paraplegic, Roy ( Lee Pace). Confined in a sterile hospital ward, he finds surprising companionship with Alexandria ( Catinca Untaru), a young orange picker who is recovering from a nasty fall. Sitting on his hospital bed, Alexandria is entranced by Roy's surprising knack for storytelling, and so the tale unwinds, transporting the young girl, and viewers to areas of the world they can only dream of. It seems to be suggested that the story we see is not strictly being created through Roy's words alone, but what those words mean when filtered through Alexandria's imagination.

The story that Roy tells revolves around a quest in which Roy becomes a bandit in a red silk mask, a pretty hospital nun becomes a treacherous princess and a doctor becomes Charles Darwin in a bowler hat and ladybug fur coat - the world in the eyes of a 7 year old. The most visually stunning element is the transition from each jewel-toned stunning location of the dream world into the juxtaposed real world which is monochromatic, sloppy and unbearably fair.

The set design and location reflect the mood of the story, transposing the viewer through the scenes. In one scene, beauty, romance and drama are heightened by the arches of Islam, flowing water and spine shivering music. In another, a beautiful bride stands before rhythmic architecture as the swirling fabric of her dancing guests flows over infinite mosaic floors. However the imagery quickly spirals into a scene of dissarray when it becomes apparent that in reality, Roy is shrouded in a darkness surrounded by selfish spite, and his depressive psychology leads an eerie tale to unfold.

What Tarsem seems to emphasise in this film, is that all stories have an agenda, and it is not always a noble and moral one. He reveals how they can manipulate and be manipulated to serve the purposes of the teller and also the listener.

The combined impact of cinematography, camera work, set dressing, location finding and costume design leave this film with little to ask for - except maybe, a stronger narrative. The viewer ends up asking - what happens next? Is the whole endeavour meaningless, and therefore worthless, as it has no profound ending? In my opinion no - for a great tale is in the journey and it's telling, not the final destination.

Book Review by Emma Mathews

Yes is More is the first monograph showing the work of BIG, Bjarke Ingels Group, a Copenhagen based company. They have a strong focus on making their buildings meet the needs of society, creating architecture that reflects how we live. The practice believes that just as mankind has evolved, the principles behind architecture should also, and that we should adapt architecture to society incorporating conflicting uses into single pieces of architecture. From limiting conditions they aim to create new ideas, for example for the Tojhuset project the shape is based on the building code of maximum heights.

Yes is More is in an unconventional cartoon style, going against the expected architectural monograph. By bringing the popular culture into their publication they are displaying the importance of society to the firm's philosophy. When you open the book you are hit by an explosion of colour, this combined with the comic style and informal tone, conveys the energy and playfulness of the practice and their projects.

Thirty five key projects are shown in a storyboard fashion, incorporating renders and sometimes photographs of the designs. This method allows the reader to clearly understand the evolution of the projects. Problems that had to be considered and key ideas are made apparent through the use of speech bubbles. I found that, combined, these allowed me to appreciate the final design much more than other monographs where the focus is on the final product. The information given is light-hearted, whilst also being informative and intelligent, making it more accessible to the general public and re-emphasising the links of society and architecture. Bjarke Ingels himself often pops up, commenting on projects.

There is no standard layout, with each project dictating how its story board is presented, stopping the monograph becoming monotonous, and instead adding to its energy. The use of repeated images also brings in the world of pop art, whilst emphasising key points. However, I also found sometimes the lively collage of images and words meant the final design was somewhat lost and underappreciated. Despite this I felt it suited their company and projects and made for an enjoyable read, allowing me to gain a great insight into their concepts whilst also being entertained. It is available from [www.amazon.co.uk](http://www.amazon.co.uk)

# Yes Is More

# Technology: The Rise of 3D Printing

It's coming. A force to be reckoned with: 3D printing. Anyone can do it and the scope of what it can do is vast. From to day-to-day objects such as stationery to entire urban sectors of cities: anything can be designed by anyone. It seems everyday there are more products and ideas being realised so here's a snapshot of what 3D printing has to offer.

By Issy Spence and Arinah Rizal

## How it works

This cutting-edge technology has actually been around since the late 1970s, but was only used for industrial purposes. The first step to create your object is to have a computer aided software (CAD) with which you can design your object. In the process of additive manufacturing, there are two possible ways to 3D print something. First is the laser sensory technique, where thin layers of nylon powder, or other powdered substances are deposited on the print beds.

An overhead heat laser then hits the selected particles. Under the heat the particles glue together to produce a solid form, and the particles unheated can be brushed away to reveal the form. This is repeated, layer by layer, working through the cross section and resulting in the build up of the object.

The second method is known as FDM, fused deposition modelling. Filament is loaded into a nozzle and extrudes and writes the cross section. 3D printers are soon to be readily available in the home, so some of the following can be a DIY job.

## Medical

Let's start small. Cells. The latest big news in the 3D printing world is that researchers from the University of Cambridge have successfully printed adult nerve cells. Printing adult rats' retinal cells means that there is the medical potential to replace damaged eye tissue and thus curing blindness.

Printing prosthetics is also a hugely growing aspect of 3D printing. A literal Body Shop. Fripp Design & Research say a printed nose would only take 48 hours to produce, whereas currently prosthetics are mainly handmade, taking up to 10 weeks. The ability to 3D scan patients, means a better fit of prosthetics, at a fraction of the time it normally takes to produce. It's early days, but the only way is up.

“...a printed nose would only take 48 hours to produce...”

## Food

This takes processed food to a whole new level. Simple substances such as chocolate and sugar have already been loaded into printers to produce basic foods.

Forget the horsemeat scandal, just the other day Researchers at Maastricht University in the Netherlands successfully produced meat within the lab: a strip of muscle 1cm x 2cm. Meat that was never walking. Apparently, not the tastiest. By engineering stem cells, this developed 'meat' could hypothetically be loaded into the nozzle of a 3d printer and produce hamburgers. This would set you back around £200,000 so not exactly a solution to world hunger yet. But in the future, the prototypes for hamburgers and pasta could become a reality, and you could have your very own 'home-grown' meal.

## Fashion

December 2012, Victoria's Secret fashion show revealed an shimmering work-of-art lingerie ensemble on the runway... and yes, this costume was 3D printed. Dazzled in Swarovski crystals, the white costume consisted of a corset, wings, and a matching hat. It exhibited the fractal-like concept of snowflakes and the complexity. Alongside intricate patterns, such complexity was also delivered through the product's structural rigidity to give the impression of fragility. It was a design collaboration of Swarovski, Victoria's secret, architect Bradley Rothenberg, and the world's #1 3D printing company Shapeways. The model Lindsay Ellingson,



Dezeen



Dezeen

had to be 3D scanned in order for the design team to understand her exact dimensions and measurements. Then the snowflake geometry would be able to interlock accordingly, achieving the perfect fit. The hi-tech printer can produce complicated designs faster and cheaper than any other means. It pushes the limits of high-level detail... and it comes out pixel perfect, exactly how you imagined it.

Two young New York based designers Alexis Walsh and Ross Leonardi completed a 3D printed dress named AFTER TRELLIS. 480 individually printed plastic nylon components form the futuristic piece. From its name, it can be said that the design follows the concept of a trellis framework. Intersecting vine-like structures emerge and continuously grow on the model.

## Architecture

3D printing is commonly used in architecture as a modelling method. Well, let's scale up to the real world. Architect, Adrian Priestman has created the very first 3D printed component of practical use: a sheath. It was developed for the roof canopy of a new office building 6 Bevis Marks, soon to be standing right by Foster's iconic Gherkin in central London.

The project consultants thought that conventional steel nodes would not be aesthetically pleasing nor practical for the roof canopy. As a solution to this, Priestman modelled a new component that would be able to serve both requirements. Despite being printed in sections by laser process, the overall component looks like a single node. They take on the role of joints to connect the canopy's arms with the columns of the building. After the construction component was tested under very extreme conditions and wind blowing at 1000 mph, project client and contractor approved of it.

## Beyond

Advancing from the planet we live on, it seems 3D printing can be out of this world. Italian inventor Enrico Dini (chairman on Monolite UK Ltd.) has proposed to build a modified 3D printer (known as the D-Shape) that can utilize lunar regolith. (i.e. moon dust) to construct a moon base on the moon itself. Dini is in discussion with Norman Foster, La Scuola Normale Superiore and the European space agency for this incredible idea.

The D-shape printer is huge. It was developed by Dini and can print actual buildings out of sand grains and inorganic binders. The underside of the printer has hundreds of nozzles

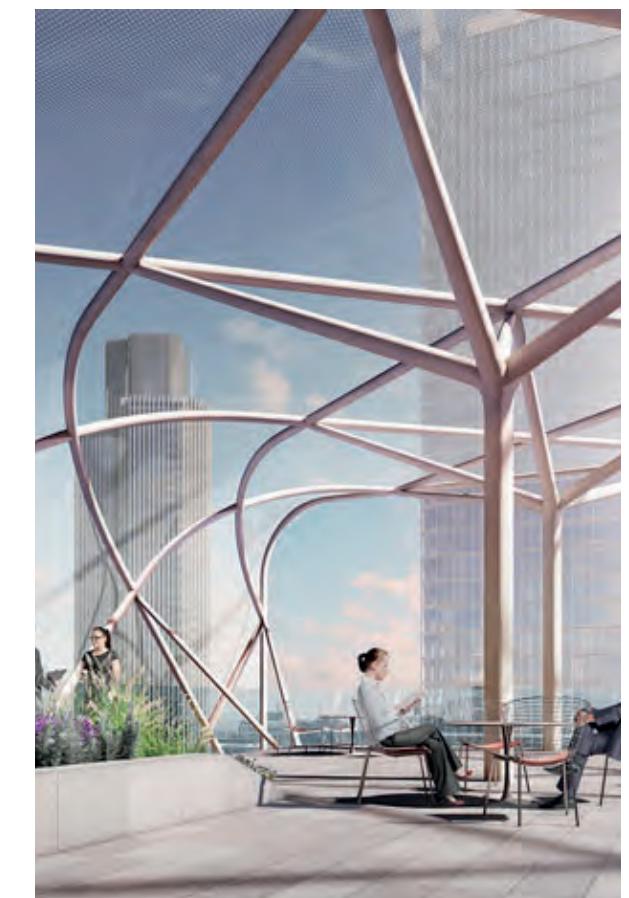


Shapeways

which sprays a very thin layer of sand, followed by a layer of Magnesium-based binder. Using the D-shape as a construction technique is four times faster and half as expensive than conventional construction. Also, it leaves little waste... perfect for the environment.

So as this develops could this end up being the cities of our future. The exciting possibilities Spurs a wave of infinite inventions and experiments.

3D printing is growing daily. The list of successful outcomes, possibilities and scale continue to expand over time. It can heal us, feed us, clothe us, entertain us, endanger us, house us. Ultimately, our imagination is the limit.



8bvismarks

# Interview: Erasmus Experience

Every year Bath sends some of its brave young souls out to tackle architecture, and life, in a different European City on the Erasmus programme. It's a time full of challenges, a great chance to sample new architectural methods and to widen their cultural horizons. We interviewed third year students to find out how they're settling into their new European territory.

## Interview by Joanna Burleigh

### Where are you studying?

Laurence	Delft University of Technology, Netherlands
Megan	Technical University of Lisbon, Portugal
Fraser	Munich University of Technology, Germany
Priya	ENSAPLV, Paris, France

### Can you sum up your first impressions of the new country in three words?

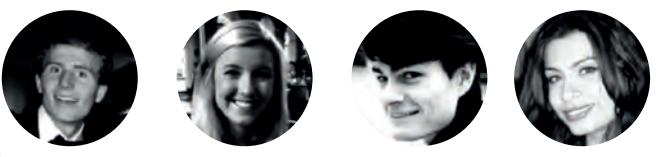
Laurence	Flat, Bikes, Beer.
Megan	Warm, Inspiring, Alive
Fraser	Efficient, Bavarian accents, Beer
Priya	Chaotic and diverse but at the same time - captivating

### What have you found to be the strangest Cultural difference?

Laurence	The dutch have some pretty weird food combos - clearly the result of the relaxed drugs policy. For example: Cheese and Mustard; and breakfast is toast with chocolate sprinkles.
Megan	The time difference - people eat lunch at 3pm, eat dinner at 10pm and party until 7am.
Fraser	German people tend to be much more direct in what they say and do. The idea of 'small talk' is virtually nonexistent. Also, German people don't usually understand sarcasm.
Priya	the culture can be quite different and for me, the language was the hardest thing to get used to. That being said, studying at the ENSAPLV school of Architecture has been great.

### How's your experience been so far?

Laurence	I think what has been clear going abroad, is how severely under served we are in the UK university system. For half the price you can have better facilities, more options and most importantly more fun. The short stay accommodation here is not great but much cheaper than Bath; and if you scout out before you come you can get an amazing place in the centre of town for next to nothing. Food as mentioned above has its peculiarities, but it is pretty easy to find something you know and eating out regularly here is affordable. Finally it is really great being part of the international crowd. I've met loads of really interesting, worldly wise people and now have a place to stay in most parts of
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Laurence      Megan      Fraser      Priya

Europe and beyond.

Megan Very well as a whole but sometimes frustrating; my Portuguese is progressing and I am learning different ways of looking at architecture, but I am also learning that people are not so friendly when it comes to you not understanding a language. Some people fully expect you to be fluent in about 2 months and many of my lecturers refuse to speak in English. Architecture appears to be the same in any country; lots of work but extremely interesting to learn about the different ways people approach projects and build here. If I was to go on Erasmus again I would suggest living with Portuguese people and not Erasmus people: I am in a flat of 14 and we have very different views on what Erasmus is- for me it's to learn the language and immerse myself in the culture, and for them it appears to be partying constantly and never going to school! Portugal is great for nightlife but also great in the daytime too; there is so much to do. I really recommend it!

Fraser I am really enjoying my Erasmus year so far. The university is well organised and offers an interesting range of courses. Munich and Bavaria have a lot of traditions and festivals, such as Oktoberfest, Tollwood and the Christmas Markets, so there's always lots to do in the city. Munich is in the heart of Europe so is also a great place from which to travel.

Priya As a city, Paris could not be better suited to an Architecture student. As an Erasmus student, the experience is great for networking and finding your own way in architecture. I was lucky enough to land into the head office of Louis Vuitton and secure an internship in designing their retail spaces. The experience depends completely on what you choose to do with it as there is so much on offer. Being only half way through, I look forward to the continuing year and welcome it with open arms!

Open Design is an emerging model of designing, for a connected and open world. It is formalized within the *Open Source Foundation*.

By Harry Streuli

Ronen Kadushin, a Berlin based product designer and teacher, established The Open Source Foundation in 2010 when he published the Open Design Manifesto. The manifesto consists of two requirements: "a) An Open Design is CAD information published online under a Creative Commons license to be downloaded, produced, copied and modified. b) An Open Design product is produced directly from file by CNC (computerized numeric control) machines and without special tooling." The manifesto recognizes the success of the Open Source Initiative, and credits the creative and socially concerned qualities as triggers to the Open Design revolution. [1]

Open Design and production of physical things, rather than a virtual application, is inherently flawed due to the cost and time implications of fabrication. However, with recent advances in computer aided fabrication and rapid prototyping, it has now become possible for the Open Design revolution to begin. For product design, this process is already underway, in many locations and forms. There are a huge range of resources published online that fulfill the Open Design requirements, although not entirely related to each other. The similarity between projects perhaps reinforces the credibility of Open Design.

Thingiverse is an online repository of CAD information for end-user production via laser cutters, CNC machines, and additive 3D printing. It consists of designs ranging from towel clips to lens caps and bottle openers. Rep-Rap is an Open Design for a 3D printer that can actually replicate itself by 'printing' its own components, for assembly by the end-user. Make magazine is an online publication that brings Maker-Faires to towns and cities across the globe, exhibiting and sharing 3D printing and rapid prototyping technologies.

**“an emerging paradigm describing new procedures for the design, construction, and operation of buildings, infrastructure and spaces.”**

# Open Source Architecture

Open Source Architecture sits within the wider umbrella of Open Design. As such, it does not have formal representation. It is "an emerging paradigm describing new procedures for the design, construction, and operation of buildings, infrastructure and spaces." [2]

Before the 'modern' digital era, people shared cooking recipes, labour, and construction methods. A vernacular developed through the co-operation of many individuals working towards a common goal. Vernacular architecture is one of the earliest forms of Open Source.

The Open Architecture Network is a facilitator to open architectural design with a focus on "communities in crisis." It is the brainchild of Cameron Sinclair and Architecture for Humanity, an international, non-profit, aid organization. This network aims to improve living conditions for ordinary people through freely available, adaptable and sustainable design. Essentially, it is a crowd-sourced library of Open Source architecture. [3]

WikiHouse is a project from London based design studio :00, which is a practice made up of not just architects but also designers, geographers, technologists, and sociologists. WikiHouse is an "Open Source construction system", where the construction files and design models are freely accessible online, and are open to development and modification. The system is based on standard sheets of 18mm structural plywood. It uses a tool-less and almost fixings-less method of assembly. The CAD files are produced through the free and easy to access 3D modeling software, SketchUp. Ease of access is further enhanced by the development of an Open Source plugin for SketchUp that adapts the WikiHouse models and prepares them for CNC cutting on standard 1200 x 2400mm sheets, with just a few clicks. This means that anyone can take the designs to use with local production methods and local materials, in order to fabricate and assemble their own WikiHouse. [4], [5] This is still, however, in early development. There are issues surrounding the waste material left over from CNC machining and the resultant cost. As the project isn't trying to cut costs per se, it is proposing a system that is applicable and accessible in many areas and to many demographics, which is arguably more important than associated cost.

The WikiHouse project has truly adopted the ethos of the Open Source movement. One of the WikiHouse designers, Indy Johar says, "it is a platform which is prototyping the reality of socializing design while simultaneously democratizing production, and in the process provoking a serious challenge to the industrial and intellectual dogmas of a professional elite." [4]

This mantra has rebounded around the project team, consequently taking hold in locations across the globe. As well as

# Drop City



Above, a WikiHouse prototype. Right, Foundhouse is ready to occupy! the design team in London, other pockets of development have sprung up in New Zealand and Rio de Janeiro. [6]

The WikiHouse group in New Zealand formed after the Christchurch earthquake of 2011. They are focusing on providing effective relief to the people of Canterbury, especially in rehoming the 6100 business that were affected by the earthquakes, that a large proportion of the population rely on. Due to the open nature of WikiHouse, it left the Canterbury businesses with a sense of empowerment, and they were able to be involved with the design process from the outset. The team was able to focus on longevity, seismic resistance and sustainability to the point that it can aid the environment. [6], [7]

WikiHouse is a structurally tested and verified system to form a frame of a building. It is designed for complete adaptability once assembled. A series of "hooks" and "tabs" allow simple additions of rain proofing, insulation and cladding both internally and externally. The openness of the project has already attracted individual and unrelated offshoots that adopt the structure for personalisation and adaption to the local context. Foundhouse is one of these projects, and has used a crowd-funded business model to build a WikiHouse in Utah. This particular project uses found materials and recycled doors and windows to complete the envelope. Recycled logistics pallets are re-appropriated for the cladding. [8]

The difference between the above two interpretations of WikiHouse demonstrates the potential diversity of a simple structural system. The benefits of the open nature of the project are clearly demonstrated by the level of adoption and development carried out by the independent projects.

A separate project offers a similar product to WikiHouse, but rather than focusing on an open and adaptive design, the Open Source Building project suggests a more open design process with respect to the housing industry. Open Source Building aims to tackle the suffocating housing market of today, where there are only two options for purchasing a new home; approach an Architect for a tailored design, or succumb to the generic house built by a speculative developer. The proposal suggests an "Open Source Building Model" based on a permanent "chassis" and a consumer customised "infill". [9, p. 2]

While the product of Open Source Building is not strictly Open Source, it does offer a more open process of design. It encourages developer and contractor transparency; therefore appropriate and efficient homes are delivered, while retaining a high quality of design and construction. The customer employs the use of a "Design Engine", on license from an Architect, which



is used to configure their personalised infill at the point of sale. It is then fabricated to order and assembled on site. [9, p. 2]

In this case, the chassis can take almost any form; from single sub-urban plots; to high density urban blocks. The chassis delivers all basic building services: water, heating, data and electricity. It also allows the implementation of a variety of sensors that can connect to an "Internet of things". There is the potential for "individuals to tailor their physical and computational environment according to their needs and values." [9, p. 8] An extension of this is to use the computational offering of an Internet of things to define the physical environment.

The integration of technology and data into our physical built environment has been described as a "Sentient City". The sheer dominance of connected devices in twenty first century cities is almost overwhelming, to the point where our phones, cars, running shoes, watches and even spectacles are now internet enabled. Mark Shepard defines the Sentient City as one that is aware of the things going on within it. However, sentience does not imply self-awareness, so we arrive at a city that "feels you, but doesn't necessarily know you". [10, p. 31] Yet it is not the city itself that is sentient. It is only by the collection of data from an "Internet of things" that a city gains its sentience. The omnipresent connected devices "note what is going on in the city and output their impressions in all sorts of data streams".

Shepard continues to describe a set of functional requirements defined by the 1963 Archigram exhibition, Living City. Sets of functions are assigned to sets of spaces that join to form an architectural "program". There could be a program for an office, a house, garden, or library. Each space is associated with an array of activities and behaviours that they are designed to support. The resultant program dictates special planning, materiality, furnishing and finishes. [10, p. 25] This description is almost like the "Design Engine" proposed by the Open Source Building project. Inputs for each program will be data gathered from connected devices. It is processed by the Design Engine and then delivers a complete building tailored to its environment.

Rather than offering an Open Source product, these two projects offer a design process, or tool, that is (or could be) Open Source. They still benefit from the Open Source principles but retain the need for professionals and a deep knowledge of the construction industry; they retain the need for an Architect.

Open Source principles are undoubtedly beneficial to the process of design, especially in the electronically connected world of today. The Open Design of software goes hand in hand with the Open Design of the environment in which it is located. It offers

complete end user flexibility and bottom up design.

As technology is entwined within the built environment of today, it is likely that development of Open Source applications in the built environment will need to embrace the Open Software standards. This will encourage further adoption, which offers more contributors to products and designs. End-user peer review should see the rate of development increase way beyond that of a traditional design studio.

Open designs and free distribution of the drawing files could be seen to undermine the construction industry, but it is more likely an opportunity for the profession to adapt to the changing cultures of the world. The public are becoming more interested in their surroundings, and want to have a part in the production to understand the process behind construction. If architects are too close-minded to see evolution of their profession, then it will either stagnate, or someone else will take the lead. As we have seen the professional software industry successfully integrate Open Source, and not be adversely affected by free distribution, then we should be able to make the same adaptations in architecture.

It is fair to say that the Open Design revolution is already underway. With a range of established 'servers' already in position, such as the Open Architecture Network, it will only be a matter of time before more open projects begin to materialise.

Whether this manifests as a literal design such as WikiHouse, or as a programmed software application, is still to be seen. I think it is likely to be both; Open Software is breaking into the hardware realm with the Open Source computer systems and physical microprocessor architecture available to the average hobbyist. As WikiHouse founder Alastair Parvin so elegantly put, "it's dependent on people who believe that open-source housing is a problem worth solving." [4]

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## Documentary Review by Joanna Burleigh

A Golden era of change was promised to America at the dawn of the 1960's as John F. Kennedy became president, promising "New Frontier," a package of laws and reforms that sought to eliminate injustice and inequality in the United States.

However, after Kennedy's assassination Lyndon B. Johnson's government could no longer afford to fight the war on poverty and racial injustice; after all, the war on Vietnam was too costly a business.

Upheaval was rife with a generation unsatisfied with the unfulfillment of their governments promises, and student activists grew more radical. They took over college campuses, organized massive antiwar demonstrations and occupied parks and other public places.

The counterculture grew more outlandish as the decade wore on. Some young people "dropped out" of political life altogether. Some moved to communes, away from the turbulence that had come to define the everyday of the 1960's. One of these communes was Drop City.

In 1962 Jo Ann Bernofsky, Clark Richert and Gene Bernofsky coined the term 'Drop Art' at the University of Kansas in Lawrence. "Dropping" artworks from the rooftop of a loft space in Lawrence, they were making art a spontaneous part of everyday life. In 1965, they bought a small piece of land near Trinidad, Colorado and called their settlement Drop City. They were soon joined by other artists, writers and inventors, and they started building a community that celebrated creative work.

Although the Droppers had little building experience, they were full of ingenuity and exuberance. They were inspired by Buckminster Fuller's geodesic domes and the crystalline designs of Steve Baer, a pioneer in geometric structures and solar energy. They created domes which cost almost nothing and were made from salvaged materials - culled lumber, bottle caps and chopped-out car tops. Drop City became a lab for experimental building, and in 1966 Fuller himself honoured Drop City with his Dymaxion Award for "poetically economic structural accomplishments."

After receiving international attention the community became overcrowded and was eventually abandoned to transients. By 1973, Drop City became the world's first geodesic ghost town. Now recognised as the first rural commune of the 1960s it inspired a generation of alternative communities. Its early experiments with solar technology and recycled materials speak to a green economy and a new generation of DIY-ers, and proves that new beginnings can be possible if you're willing to break free from an established, far from perfect, society.

# The Shard: A Bold Beginning

'The work of Renzo Piano'

By Akshay Nagar

The skyline in London has been very recently blessed by a new post card scenic marvel, none other than The Shard.

It stands tall in the very heart of London: The London Bridge quarter sits centrally between Westminster and the West End, the city and Canary Wharf and the South Bank. Positioned in such a central, historically dense part of Central London, The Shard today stands about 90 storeys (including three under ground) at an astonishing height of 310 meters making it at this point the tallest building in the whole of Europe.

The Shard has a particularly interesting and distinct story as far as its origins are concerned. "It came very quickly the idea" Piano honestly exclaims. It was March 2000, when Piano met property developer Irvine Sellar at a restaurant in Berlin. The Shard began as a sketch on the back of a napkin in the restaurant during the meeting. Today it is one of the most talked about building in Europe for many different reasons.

Piano's architectural firm, Renzo Piano Building Workshop, has said that Sellar still keeps the famous napkin, cherished in his office.

In an interview Sellar explained how he thought Piano has successfully absorbed and felt the beauty of the river and the railways and the way their energy blended together. It was then that with a green felt pen he began a sketch on the back of a napkin, that Sellar at first perceived as a giant sail or an iceberg. It is a well known fact that being brought up in Genoa Piano shares a fascinating relationship with the water and boats, he had been involved with designing boats. This conceptual giant sail or mast was perhaps an impression of a mind well fed with nautical sciences.

The story of the napkin has been in the press, the internet and talked about amongst not just architectural professions but seen as a fascinating tale by many. It would be wrong to say after all that a giant half a billion pound development originating from a casual sketch on a napkin is the conventional way. It is the scale and magnitude of the Shard itself and the grand stature of Piano along with a very unconventional way of beginning such a project that all together along with many other factors make it an architectural fairy tale to be told for years.

Piano himself, however has sounded rather squeamish about the legend that has taken architectural press by storm for a long time now. Piano humbly says, "I do not want to create a mythology".

Though it is probably unfair to judge all of Piano's architectural legacy through the Shard, especially when he claims he has no continuous or constant style and is very much against it. It is very clear that it is one of his most important and talked about project.

In 2006, Piano was selected by Time Magazine as one of the 100 most influential people in the world. One interesting aspect about the story of the Shard is how this highly influential architect who has changed the course of cities like Paris with buildings like the Pompidou Centre left a mark on London or the heart of Londoners. Piano has a



The first sketch on the napkin

clear vision of the positive impact he thinks the tower has on the city, before the opening he said, "The building will be atmospheric. It will play with the city. It will be a symbol of lightness".

Shard and criticism can not be discussed exclusively and criticism has been something Piano has had to face for this project. Whether these critical allegations or remarks

are based on solid grounds or whether Piano's responses to these are convincing may at the end of the day be subjective. One thing is certain it has been discussed about and been criticised and it's fate as a tower is such that this has been done much more than most buildings and why not? it is a bold tower; it took the courage to project itself as Europe's tallest.

In fact the very name "Shard" came from criticism that it looks like a Shard of glass. It was to be originally called London Bridge Tower. The developers after a while thought it would be a good idea to market the tower as the Shard, after the name hit popularity heights.

It has been criticised for dwarfing St Pauls. It has been called the great glass elevator. It has faced considerable hostility throughout its journey. It has been seen as a symbol of wealth and power destroying socialist ideas. The criticism has been far more than most towers. Piano himself has talked about how the viewing platform, though he thinks is expensive is cheaper than the Empire State Building. He admits he tried and would continue to try to convince the developers to reduce the price though.

He has replied to criticism saying it should be celebrated as a shift in the City. It is a symbol of the vertical city arguing on bases of sustainability he urges people to condemn its acceptance as a symbol of power and wealth.

Much has been said in its adoration from the height to celebrating its crystalline structure, it has been compared to Bruno Taut, the German whose 1914 Glass Pavilion was complimented with almost purely utopian slang as "glass brings a new era" and "light wants crystal".

At least the same amount has been said in its criticism, but Piano insists it could be iconic one day, while that is for time to tell.

One thing is for certain it indeed has a truly unique and fascinating beginning, where the initial idea drawn very informally is carried bold till the finished building.

As for the politics involved with the public enquiry or the capitalism with a fall a billion pound project or the legacy of mixed opinions from adoration to criticism at bipolar degrees, probably can be summed up best by Piano's own quote,

"Architecture is art, but art vastly contaminated by many other things. Contaminated in the best sense of the word – fed, fertilised by many things." - Renzo Piano

# Two Nights Before 1st Crit

By Isaac Tam

On the same night a week ago, I was on a not so comfortable stool in front of my laptop with the InDesign brochure of my first individual project open. Below my computer was a white melamine drawing board lying flat on its stand, and underneath, a large pile of my finished traces of what were printed from my Sketchup model. Surrounding the board was a mixed heap of tracing and printed papers while my final model and initial maquettes sat unsteadily on top of the stack.

This was the product of five weeks of work, or four tutorials, with just another night before the end. Tutorials can be a real pain I guess. You could easily get yourself a direct flight back to the point where you started a few weeks earlier if the tutors do not like what they are seeing. Then you restart again and again until the final week, where your five-week project becomes a single week one since everything needs redoing after the last tutorial.

Next to the pile of paper was a red water bottle. A one-litre large one that was always empty and had a loosely twisted lid. Nearby was a pack of McCoys' Chargrilled-chicken-flavoured crisps. On the other side of the table lay a microwavable meal box filled with the cold remains of a quick dinner.

My eating habits have been quite regular over the last two weeks of the project – Cooking one large pot of bolognese sauce on Sunday. Scooped a small portion and mixed it with boiled pasta for lunch. Then another portion for dinner. And then another portion each for the next nine meals before finishing by dinner on Friday. It did not taste as bad as you might think, nor as boring. I suppose at some point in this month my life was completed by architecture alone.

The night went pretty well. Unlike some previous nights, the light did not turn off by itself as there were constant small movements in the studio. Everyone was working, making use of every second in the last thirty-six hours before the final crit pin-up. A weird sense of calm formed by a common anxiety. Occasionally footsteps could be heard as one or two paced around to check out others' work, and were usually followed by a muffled chuckle or a short sigh.

I have always worked in the studio. There were people around to talk to if you got bored, or stuff to borrow if you were short of anything, but I guess what I enjoyed was the experience of going through times with people who I cared for and who were on the same boat as I was.

The first few months of architecture have been tough. Work got redone, food got eaten all week, and studio became a second home. Then again I suppose it happens just because we care about what we do. So all the best, architects, as we embark on our new journeys this year.

# The Japanese Impression

A Book Review by Joanna Burleigh

It's hard to ignore the influence of Asia in today's design world. From the simple but beautiful rhythmic patterns of Kengo Kuma to the quirky but balanced designs of Muji, Asia is bringing the west to places it could only dream of. And it all kicked off 200 years ago.

Picture it. It's France, 1800s. You're with the only crowd that matters - the Parisian avant-garde and a crate arrives from the East, thanks to a lift in the trading restrictions. The lid is delicately prised open and your understanding of art is changed in an instance, as you see some of the most amazing Japanese visual delicacies. For the first time since the Renaissance, European art changed, in the form of Impressionism. Many characteristics of this style were influenced by the works of ukiyo-e painters and printmakers, such as Katsushika Hokusai.

The importance of line, colour and notan (a Japanese term to describe the relationship between dark and light) all added to a revolutionary new compositional technique. Combined with snapshots of common, everyday rituals becoming the compositional focus, such pieces as Degas' Ballerinas and ladies bathing were created.

Henri de Toulouse-Lautrec's prints followed, along with Monet's bridged waterlily scenes and Vincent Van Gogh's Almond Blossom c.1888. They display Japaneseque inspired high horizontal lines, simplistic palettes, diagonal horizons and lack of depth through patterned planes. Mainly through its influence in the arts and crafts movement, the Japenesque style seeped across the Atlantic into the American culture, and inspired such men as Louis Comfort Tiffany and Frank Lloyd Wright.

There is a wonderful consideration to the work of these Japanese print makers. Their appreciation of nature, the simplistic but strikingly beautiful bleeding palette colours, and the wonderful elegance and freeness with which they depict water all create wonderful compositions which tell stories, and provide twists on places which some of us can only dream of visiting.



Japenesque: The Japanese Print in the era of Impressionism, Karin Breuer

# Architectural Relationship

Why your project is really a love story.

by Marie d'Oncieu

Starting a project is like starting a relationship.

Many times, it's love at first sight. As soon as you get the brief, you have the "Eureka!" moment. Your concept comes to you instantly. This is the project you've been waiting for. It's like seeing that one person across a crowded room. You get lightheaded, you envision all the possibilities. So you swallow your fear and make your move. That first sketch is like asking someone out.

From then on you're hooked, you spend all your time in studio, you want to explore all the possibilities, see where the relationship will take you. Every new aspect you discover is exciting and full of potential. "What? There's a manufacture of locally sourced timber near the site?" "Really? He loves white water rafting?" You want to know everything about your new love interest, about your project; and you crystallize them. You don't think you've ever seen anyone so beautiful; a site with such a perfect contour line. You can already picture getting married; or standing there, suited up, the day of the crit, proud of that amazing building you've designed.

“So you swallow your fear and make your move. The first sketch is like asking someone out.”

Of course, you want to share your happiness with everyone. You call your parents to tell them every single detail, his dimples, his stubble; the natural light, the shadow patterns. You're constantly annoying your friends with your stories. "Yesterday, with my boyfriend...", "Yesterday, my tutor said...". The keenest of us post endless cheesy photos on Facebook. "Me and my man", "Me building my model".

Every relationship is different. Some guys chase after the most beautiful girls; like starchitects. The object of their affection may be impressive from the outside, but there's nothing interesting going on inside. They compete to date the sexiest girl, to build the tallest tower in Dubai. But they quickly get bored and move on to the next. It's easy to get stuck in a pattern. You always end up dating the same type of people, just like you're typecasted with a certain type of building if you've built a few successful ones.

On the contrary, some stories are beautifully romantic. Think of architects who spend their lives working on one project,



hoping that one day it would be perfect. They're just like a woman who writes letters to the front every day, waiting for her lover to get back from the war. Garnier worked on his Opera his entire life. Those stories make us dream of true love, of pure architecture.

The honeymoon phase lasts for a while but soon, everyone falls in the same routine. Each day is the same; tracing your plans on CAD, moving each wall 2mm to the right; watching a movie on the couch in your sweatpants. The glamour is long gone. So you stop bothering, trying to impress. You stop wearing makeup, he stops wearing cologne; just like you forgot to draw your sketches to scale and you give up on line weights.

And then every little thing the other does annoys you. Why does photoshop keep freezing? Why are your clothes always on the floor? Your parents want to help but they always say the wrong things. "So when are you two getting engaged?" "So when can we see some images of your project?" And of course, there's always that one couple that seems to be doing everything right! Picture perfect, beautiful and seemingly madly in love. You know, that one group that has it all figured out, the perfect plan, the perfect renders. They even have their layout ready.

At some point, you just want to get some fresh air. Maybe help someone else with their project, do something that looks more interesting. You spend hours admiring beautiful projects on Dezeen; or you flirt innocently with a teammate at the coffee machine. But in the evening you're embarrassed when you look at your work, at your loved one. You should have been there for him, for her, to work!

Sometimes, you want to give up. You fake it for a while, for the tutors. Some take a break; some time away, just enough to miss each other. But for others, it's more serious: it's really not working. Deep down, they knew they were living a lie, but only now are they pushed to make a choice. So they change subject, or they change sexual orientation.

Suddenly, one day, you stumble upon some photos from the beginning, on a few sketches of your wild hopes and expectations from that first week. You remind yourself of your passion, of your love! So you hold on, you give it your all to make it work! You take it a day at a time, and you fall back in love.

And on the day of your crit, like on the day of your wedding, surrounded by those who carried you through good and bad; you look over your progression, with a cheesy slideshow or a page entitled "Development".

You look into the eyes of your model, and you realize; it was really love all along.

# What Next?

After four years of slogging away at Bath and finishing with a degree in Architecture, you'd think you know exactly where to go next. You might take a year out and mull things over, stick with it and move on to the next stage of study or just do something different altogether.

## Interviews by Emaad Damda

Six months on, our most recent Part I graduates have found themselves at practices like Grimshaw, Rick Mather, MVRDV and of course Feilden Clegg Bradley. Some have forayed into law or real estate, furniture or set design and even ended up working for the BBC! Here, we get a glimpse of what life is like at Part I courses elsewhere, and even catch up with those in some of the more unusual locations around the world...



**George Mitzalis**

MPhil at the University of Cambridge

Along with a few others from our year, I had the 'courage' to go straight into a Part II and continue with my academic endeavours. After an amazing, long and adventurous summer, when I found myself exploring the great island of Madagascar and travelling through the long and narrow country of Chile, I am currently trying to settle in the intriguing and fairy-tale-like reality of the city of Cambridge. The transition from Part I to Part II was rather difficult. My four years at Bath have equipped me with all the necessary skills and tools, but the nature of this beast is somewhat different. The change of scale, the different mind-set needed to address the issues of urban design through the lens of architecture make this course very interesting but at the same time quite challenging.

So, this is where I currently stand, and from the eccentric and hard-to-love 6E Smithsons' building we used to call home, I now sit in the basement of Scroope Terrace. We now have crits in the masterful, brick and concrete extension designed by St John Wilson and Alex Hardy, where Le Corbusier gave the inaugural lecture. I am once again in a nice, friendly and pleasant environment, full of bright and helpful people.

For me Bath was great but I wanted to move on, to explore new places, meet new people and see things from a different perspective. I am not going to mention my best memories from the last four years there, there are far too many. Besides, you all have your own.



**Jonathan Crosthwaite**

Professional Diploma (Part 2) at London Metropolitan University

I wanted to get my Part 2 in order to get some buildings built asap! Bit different to 6E... you get a lot more scope to do what you want, loads of people painting and drawing and making stuff, still freezing in my new studio! Had a trip to Agra, India looking at

the slums and the culture over there, pretty awesome trip. Best experience in Bath was definitely getting to wind up Martin at the end of year show! In the future, I want to finish my Master's and get a job where I can continue to explore new countries and places.



**Tracy Shum**

MArch at the Bartlett School of Architecture, London

I wanted to go to London for Part 2, so applied to the Bartlett. We have less studio space per person for sure! However, studio work has been both challenging and exciting! We went for a study trip to Switzerland. It was quite a memorable trip as we went sledging, went to the Vals, had a big feast of cheese fondue, and did some study works and visited great buildings, of course. I know it sounds boring, but the best bits [at Bath] were all the days and nights working in the studio. [My future plans are] finishing my Part II and then get a job somewhere in Europe.



**Hannah Pedel**

DipArch at the University of Nottingham

I wanted the opportunity to experience an alternative way of teaching to broaden my thinking, and be closer to home so my mum can do my washing. Difficult to compare [it to 6E], I guess the studios are a lot newer so they tend to be much more precious and anti mess making. We're mixed with non-RIBA students for the first term; we do different projects but [it's] interesting as they've studied all round the world. And portfolios have to be A1... No more brochures! We also get free model making materials..! [My best memories are from] 4th Year Studio. [Next...] more work.



**Ben McNally**

DipArch at the Glasgow School of Art, home of culture, history and all things battered!

Martin and a few other tutors recommended [Glasgow] to me before I left two summers ago. I was drawn to 'the Mac' due to its links to the Art School & course, which focuses on the idea of 'the city' with residential master-planning forming a core part of this year's brief. I no longer have the views of the hills to the East of Bath that my final year studio had; they've been replaced by a close up view of Mackintosh's Art School and the soon to be completed Steven Holl building. Open plan studios mix all years together encouraging joint projects and collaboration. Can't tell what the Scot's love more: Alexander 'Greek' Thompson, battered sausage or Irn Bru. After three months, I can't tell which I hate the most!

[The best bits at Bath were] definitely 4th Year Studio & Basil.

**Calum Shields***MArch at the University of Sheffield*

Can't beat a 'team breakfast' to start the day off right. A certain photoshopped picture campaign waged by some unscrupulous members of our studio when our team went home will also live long in the memory, the remnants of which probably still hide in the most hard-to-reach places of 6E! 18 months in Glasgow will probably leave me needing some time in the warmer climate of 'the South' so who knows?

**Sophie Griffiths***On placement at dRMM in London before returning to Bath for the MArch in February*

Having graduated from Bath in June 2013, I began the Master of Architecture (Part 2) course at the University of Sheffield in September, after opting not to take another year out in practice. As much as I enjoyed Bath I wanted a change of scenery and I felt it would be valuable to experience a different school with an alternative ethos. Despite the two schools differing in many regards, they both have a strong studio culture where students frequently engage and collaborate with one another.

Although Bath betters Sheffield in some aspects, working on the 18th floor of the Arts Tower and enjoying beautiful views over Sheffield and to the Peak District beyond does just have the edge on the view of the bus stop I enjoyed from 6 East last year (even when the Arts Tower shakes in the wind!). Despite this, my time at Bath has given me fantastic memories and friends for life, and as I now move forward with the aim of obtaining my Part 2 and full accreditation in the next few years, these will always stay with me.

**Elena Anker Wong***Master's at the Royal Danish Academy of Fine Arts, School of Architecture, Copenhagen*

I was pretty unsure of where to go next after finishing my degree at Bath, but certain I wanted to do a Master's right away. I basically threw applications and portfolios out to various universities, so that I would have as many options as possible. Quite a good strategy if you're indecisive like me. I was very lucky to be accepted to unis in Norway, Denmark and London, and ended up choosing The Royal Danish Academy of Fine Arts in Copenhagen. The university has a great reputation and I wanted to learn a different way of architecture than what I've been taught at Bath.

It's been a bit of a transition, as the Master's course here is very independent and free with very few creative boundaries or requirements, meaning you have to have the discipline to make them yourself. Otherwise, it is great going to a university that is purely creative, for architecture and design students only. It means a constant exposure to exhibitions, creative events and artistic enthusiasm, which has made my first term exciting and inspiring.

It is pretty chilled out here compared to the intensity of the 6East studio life (sometimes a bit too relaxed even). But I won't complain, no all nighters yet! But somehow, I think the intensity of a Bath education is what makes the experience so great. The best moments from my time in Bath have been all of those celebrations that come from working hard and having the need to let some crazy out. As an Architecture student at Bath, you're always working towards something, so the few windows of fun we get have always become grand escapades and great stories.

Although I surely miss the sound of the U18 dragging

uphill at 10 km/h, my 30 minute bike ride to uni is pretty sweet. Copenhagen is a city of biking in any state or weather, and with that, I have now embraced the 'wet face' and 'crazy hair' look. It's safe to say that I will definitely stay in Copenhagen over the next few years, and then see where the wind takes me.

**Torsten Sherwood***Currently preparing a furniture collection for the Salone Satellite exhibition, Milan*

I've been a longstanding fan of dRMM's fabulous work, having met director Sadie Morgan several years ago. We have kept in touch ever since and I was lucky enough to be offered a position straight after graduation in [the] summer. The office is much more intense than 6E studio life on a day-to-day basis, particularly trying to manage several projects at once, each at different stages. I must admit that I don't miss crits and the sleepless nights preceding, although there are often late nights in the office around project deadlines. I am hoping to climb Mont Blanc in July, so I spend my free evenings running up London's tallest towers as training.

I loved all four years at Bath; it's a fantastic place to study and it was great to be able to combine playing sport with studying, which isn't always easy for architects. A highlight was the third year trip to Istanbul, and the following project based there. Exploring the back streets and dark alleyways is an incredibly exciting way to learn about a city!

I'll be back in Bath for the MArch from February, and longer term, I'd love to return to dRMM if the opportunity arose. The practice is the perfect size to be involved in some great projects, whilst also maintaining a lovely, friendly environment. After that, who knows?!

**Beth Watson***Archifact - conservation and heritage, Auckland, New Zealand*

As a part of my diploma, the first year of the course is practice-based. As such, rather than staying at uni, I am working in London, preparing models and drawings in my practice and having crits with my boss! This is of course very different from my experience at Bath, as at the moment the main fun and challenge is in juggling between getting my professional and academic work done on time, whilst having my colleagues as tutors.

I really feel that my Part 1 training at Bath is strongly valued at my current workplace as well as within the practicing profession in general. Being in charge of processing incoming CVs and portfolios in my firm, I began to understand how the hard work and reading Martin Gledhill's strange books paid off. Most Part 1 students from other schools show very little understanding of technical aspects of design, not to mention detail design or any legal knowledge! (So to all of you getting tired of finishing that roof junction detail - keep at it!)

Moving on to plans for the future, working in practice has prompted me to consider different routes into the building industry, such as project management or working within the infrastructure sector. It is a very exciting time to think about my career path in a more strategic, long-term perspective. This is something that I'd like to encourage all of the students who feel uncertain about what to make of their degrees to do. Opportunities are numerous, particularly as the economic recovery is now reality – it is however

up to an individual to design and manage one's career expectations in the same way we successfully design and manage our academic masterpieces at Bath.

**Torsten Sherwood***Currently preparing a furniture collection for the Salone Satellite exhibition, Milan*

While I was applying for Part I jobs, I was selected to take part in the Salone Satellite, an exhibition for designers under 35 to present prototypes during Milan design week [this April]. Being a one-off opportunity to do something a little bit different, I have chosen to spend my year building up to this and working on my own designs to see what might come of it.

In many ways it is very similar [to studio life in 6 East]. I spend most days in the studio, but much of my work is practical, working hands on with materials, prototyping and building designs. Pretending as if I know what I'm doing when I really don't. [Most memorable things from Bath were] Terry's t-shirts, Tim Ibell's white shirts and Martin's curtains. After finishing the Satellite I am planning on developing a new construction system for temporary and demountable structures and then probably continuing with my Part II in the next academic year.

**Beth Watson***Archifact - conservation and heritage, Auckland, New Zealand*

I was given the opportunity to live in Auckland which I grabbed with both hands. It was surprisingly easy to find a job out here. I sent out several speculative emails to the practices which interested me and was fortunate enough to catch the ideal practice at the right time. It is hugely different to studio life. I work with more mature people and the work is focused on historic and heritage buildings - so very different to the kind of projects I have previously experienced at Bath! The atmosphere is just as relaxed though, but thankfully the hours are much more sociable - so far! It makes a change to have beautiful weather everyday!

[My best memories are] meeting all the fantastic people who work in the department and being part of a great, interesting and diverse year group. Fresher's year was a definite highlight! I also met my boyfriend on the course, who is out here in NZ with me. I intend to come back to the UK to complete my RIBA Parts 2 and 3 to become an architect. I'd like to stay within the conservation architecture specialism, so after qualifying the plan is to enrol on a conservation course in the UK.

**Mahir Hiranandani***KSR Architects, Shenzhen, China*

After following up one of the Department's links with the industry, I have found myself working at [an] architectural design practice in south China. The work in this Shenzhen-based practice has ranged from the designs of corporate interiors & commercial zones within skyscrapers, to new build projects as part of the progressive development of new Chinese cities. Given greater design responsibilities, the work here doesn't stray too far from that of the chilly studios of 6E. We are given the chance to take a more engaging and contributive role in the design process, while working

in a team who are constantly testing and critiquing the design.

The cultural shifts and new language have definitely been the most exciting aspects of moving out here. For as long as I struggle with learning Mandarin, we keep ending up at different street BBQs with amazing food or finding ourselves in strange new parts of the city because we couldn't get an address just right.

Even after the late nights, early coffees, operatic tears and torpid celebrations, I will never forget kicking off every year in Bath with a new studio; with great friends and big ideas, only to finish the year in the same way... just with a bit less sleep. If I don't decide to stay on working in China, I will most probably return to the UK to complete my Part 2.

**Charlie Proctor***Harry Gugger Studio, Basel, Switzerland*

I had planned to work at Herzog and de Meuron but then an opportunity arose to work at a smaller firm that had just been setup by an ex-partner/associate. From my old 6E studio life, culturally, the mentality and life is very different, there isn't quite the same spontaneity. The work though is weirdly not too dissimilar; working on competition briefs is quite relatable and just like uni, the pace can be fast. I am just a cycle ride from some pretty awe inspiring nature and a walk away from two extra countries [France and Germany]. [Most memorable bit from Bath] has to be Turkey. I think for the most of us, an awesome trip and will never forget racing back from a night out between two taxis. [What will I do next] Masters? Stay in Switzerland longer? Another course? Who knows.

**Zarah Graham***Ministry of National Diversity and Social Integration, Trinidad and Tobago*

I am back home in Trinidad and Tobago to fulfill my duties after having received a scholarship that covered my tuition and student life at Bath. I returned to Trinidad to work in the public sector and am now employed at the Ministry of National Diversity and Social Integration. I mainly work on the restoration of heritage sites and historical buildings around the islands. I spend most of my week visiting sites and buildings around the country, most of which I would be seeing for the first time strangely enough. On occasion, we would make detours to other sites in the area just for fun!

In many ways my current work life pales in comparison to studio life in 6E, as the atmosphere is not as creative and dynamic but it offers opportunities for me to play a role in restoring my country's history as well as enriching my own experiences. Nevertheless, it is always nice being home and having the free time to balance a work life with a proper social life! The times in Bath that I strangely find myself missing are those late nights in studio when everyone's weird habits and coping mechanisms started to show as a result of our sleep deprivation. Or having a beer or two on studio breaks with non-architects! And of course, the celebrations after every project. Out of the most challenging times at Bath came the best memories.

Next I hope to find myself back in Bath completing a Master's degree in Architecture and taking advantage of any opportunity to travel and continue seeing new things and having new experiences.

# Basil Spence '13

An inspiring sample of work from the Illustrious 4th Year Basil Spence competition.



Group 2 - Jensen Choy Rebecca Plaza Lucy Edwards Liam Bryant Joe Bunting



Group 27 - Harry Graham Charlotte Eley Oli Choyce Otis Sloan Brittain



Group 15 - Emma Seaton Emma Thomas Sachi Oberoi Rich Bullet



Group 30 - Annette Davis Steven Bekkers Harry Streuli Jess Mill Jenny Pollard



Group 1 - Sophie Beagles Jade Keiderling Isheet Sachdeva Michael Brown



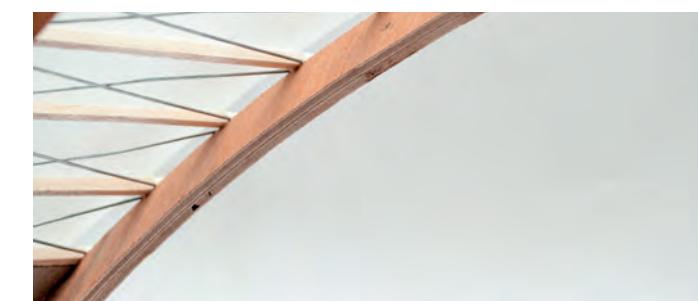
Group 3 - Amani Radeef Benjamin Hayes Guy Duhig Clare Hartley-Marjoram



Group 26 - Reshma Upadhyaya George Pickering Liam Rawlins Max Fuller Amy Jowsey



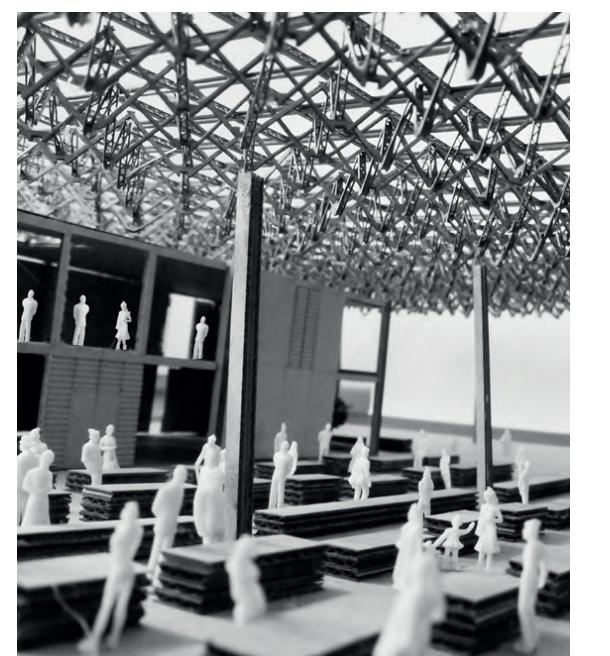
Group 24 - Harper Robertson Ed Procter Rorie Ash Will Johnson Ze Wen Chuan



Group 21 - Arthur Chia Edward Markland Ben Norrish Cathy Chan Andreas Kouyialis



Group 12 - Daniel Yang Adam Bufacchi James Tanner Hannah Keen Jihan Juhali



Group 19 - Farah Ehsan Joann Haddadin Marie d'Oncieu Diana Graca Alberta de Nardi Shaun Lombardo



Group 28 - Thomas Joseph Devant Asawla Harry Tuke Ana-Rita Martins Daniel Trehearne Marissa Stenning

# 10 Things Not To Do On Review Day...

By Emaad Damda and Marie d'Oncieu

1. Misspell your name on the wall



3. Turn up hungover / drunk on the day



5. Present with your back facing the audience



7. Go off on a tangent while talking about your project



9. Fall asleep during a presentation



2. Pin up drawings upside down



4. Turn up with paint / glue / laser cutter residue on your face



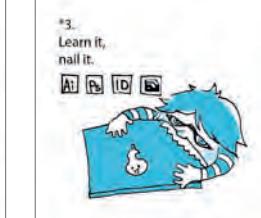
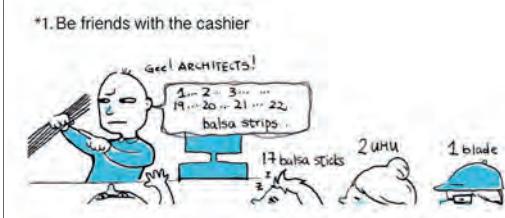
6. Use words that you don't know the meaning of



8. Drop / fall on / crush someone's model



10. Finish with...



## Studio Time

A Comic  
By Lilian Lam



## Crossword

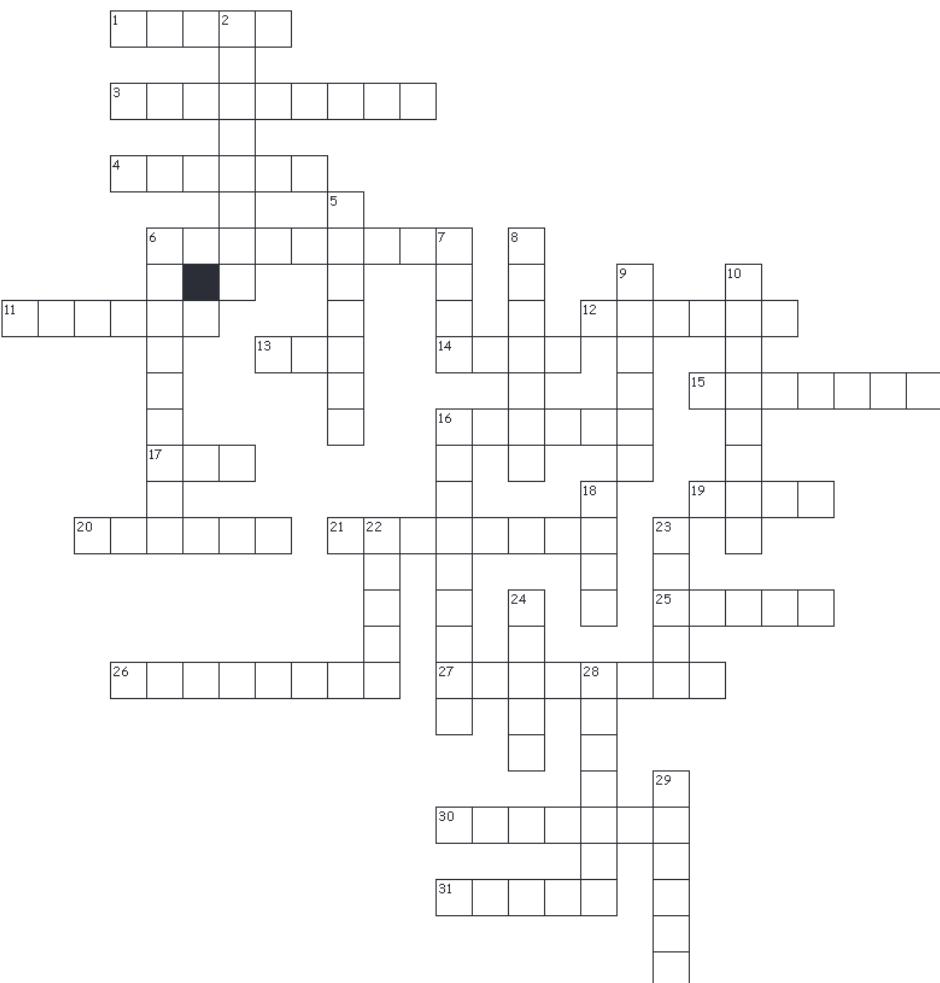
Last names of the people we look up to!

By Arthur Chia

Across

1. Walt Disney
3. Masterplan Architect World Trade Centre
4. Really red Serpentine Gallery Pavilion
6. Spanish Milwaukee Art Museum designer
11. Kaufmann House designer
12. Lloyd's Building designer
13. Chinese-American Louvre Pyramid designer
14. Fabric Munich Olympic Arena designer
15. University of Bath
16. Beehive, New Zealand, designer
17. Sendai Mediatheque designer
19. Monumental geometrical architecture
20. EXPODACH, Hanover, designer
21. Final Wooden House designer
25. Noted Finnish architect
26. American-Finnish St. Louis Arch designer
27. Museum of Anthropology, UBC designer
30. Thinking Architecture
31. Case Study House No. 8

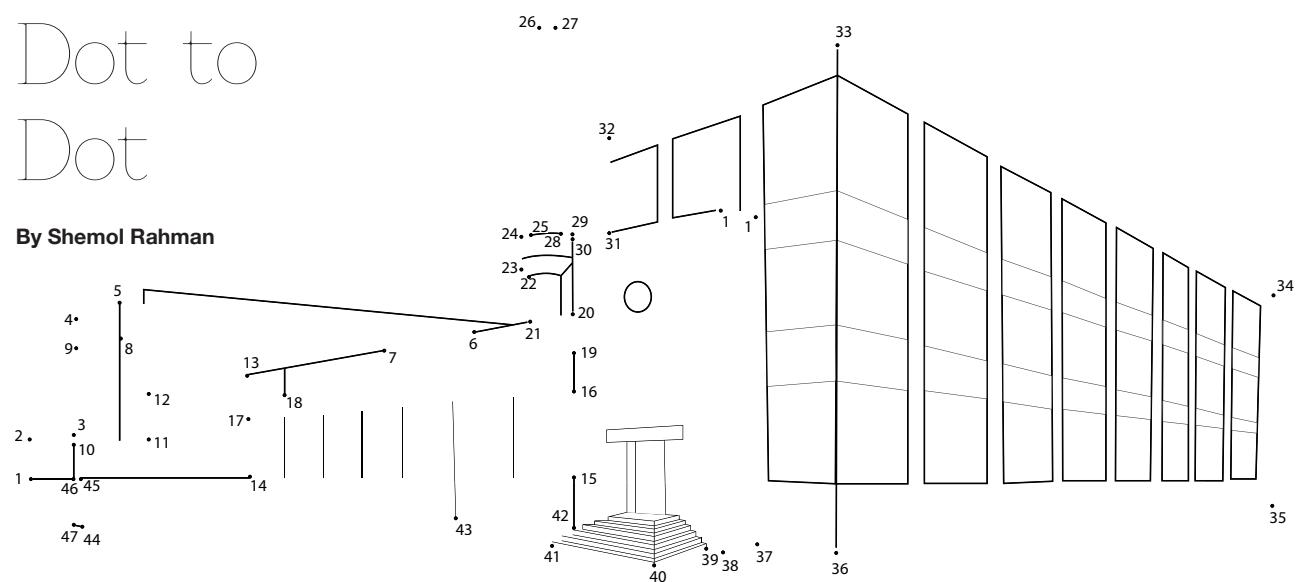
Down



Answers for the puzzles will be published in the next issue.

# Dot to Dot

By Shemol Rahman



## 7 things I Dislike about The Chancellor's Building

By Arinah Rizal

University of Bath's newly constructed lecture hall which isn't really finished...

**7 Aesthetic turn off** Ugly finishing of the exterior zinc panels... a bad version of the beautiful BDP studios in Manchester maybe?

**6 Random** The appearance doesn't have any visual connection with the surrounding campus buildings Chancellors' Building handrails Tate Modern handrails

**5 Cheat** The handrails are an exact replica of the ones in the Tate Modern

**4** You have to get through 2 sets of double doors to get in a lecture hall... despite this, insects have flown their way in to be a distraction during class tests

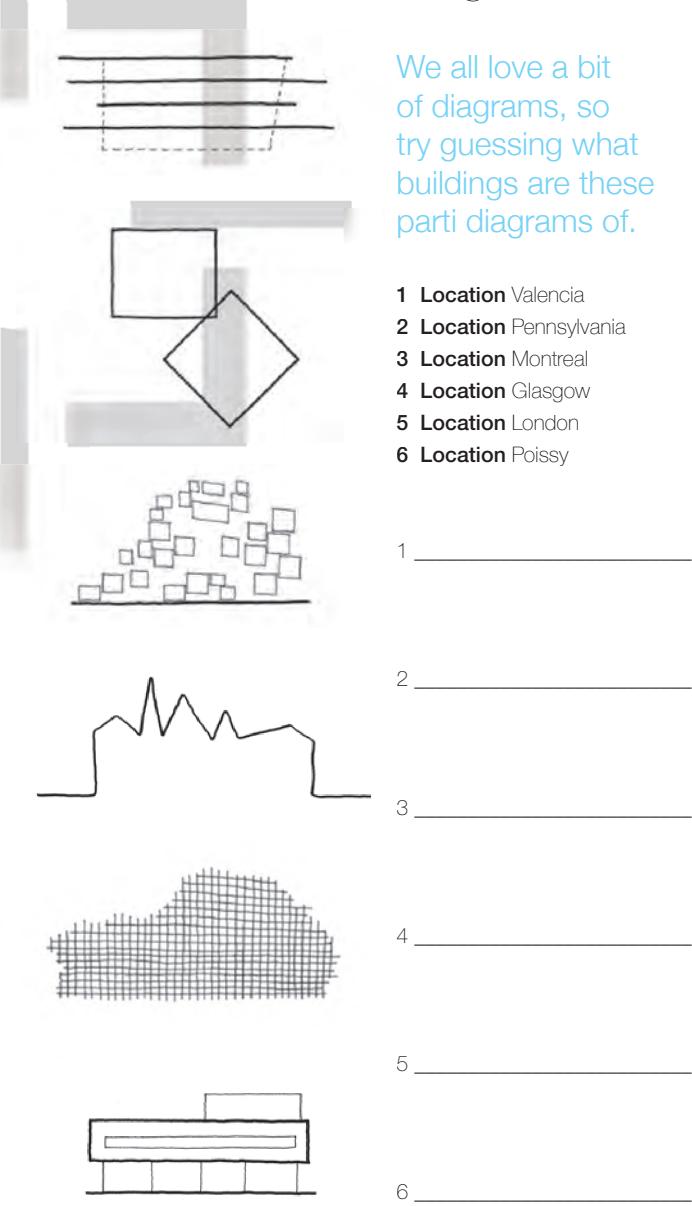
**3 Bad detail** The ceiling lights in the lecture halls do not line up with the fire alarms... an OCD's nightmare

**2 Obstruction** In the ground level foyer, there are two plants in open space, but one of them is squashed right below the floor above, ruining its foliage. Also, one of the main 'entrance' automatic doors has a post right in front of it, obstructing your way in.

**1** The metal footbridge makes noise when walked on... awkward when running on it to get to your lecture.

Answers for the puzzles will be published in the next issue.

## Partictionary



We all love a bit of diagrams, so try guessing what buildings are these parti diagrams of.

- 1 Location Valencia
- 2 Location Pennsylvania
- 3 Location Montreal
- 4 Location Glasgow
- 5 Location London
- 6 Location Poissy

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

4 \_\_\_\_\_

5 \_\_\_\_\_

6 \_\_\_\_\_



# 5 TED Talks: 5 Beginnings

We take a look at five TED talks to keep you inspired until the next issue!

By Benedict Hignell

**Toby Eccles**, co-founder of **Social Finance**, presents their new initiative to help drive social change in Britain. This scheme relies on getting investors to fund services for the target demographic to improve the individuals' livelihoods. The example pictured is focused on criminal offenders on short-term prison sentences, where Social Finance are targeting to reduce the percentage of offences after a prison sentence. If this is achieved the ministry of justice pays back the investors an amount relative to the reduction. [ted.com/talks/toby\\_eccles\\_invest\\_in\\_social\\_change](http://ted.com/talks/toby_eccles_invest_in_social_change)

Architect **Chris Downey**, who lost his sight a few years ago, talks about the new sensory environment that he is permanently immersed in. He expounds that the environment experienced by a blind person is one that every architect must keep in mind when designing a district or dwelling. This will make cities pedestrian friendly and stimulate more than just ones sight. [ted.com/talks/chris\\_downey\\_design\\_with\\_the\\_blind\\_in\\_mind](http://ted.com/talks/chris_downey_design_with_the_blind_in_mind)

**Modern Meadow** are developing new biomaterials, such as leather and beef. They strive to make these products so that animals do not have to be slaughtered to help reduce the 8% of the years global water consumption they drink and to minimise the greenhouse gases they produce, which accounts for 18% of the total emitted. In this talk **Andras Forgacs** presents early prototypes of leather sheets that are more versatile than traditional leather, e.g. their leather has the possibility of being translucent. [ted.com/talks/andras\\_forgacs\\_leather\\_and\\_meat\\_without\\_killing\\_animals](http://ted.com/talks/andras_forgacs_leather_and_meat_without_killing_animals)

In the last decade the use of mobile phones has empowered much of **rural Africa** to economically advance due to the ability to extend their products reach and to be able to contact health services in an immediate way. However this still requires possibly weeks of travel for health officials to reach a patient in need of vaccines or medication. **Andreas Raptopoulos** is aiming to set up a network of load carrying drones across Africa to dramatically reduce delivery times. [ted.com/talks/andreas\\_raptopoulos\\_no\\_roads\\_there\\_s\\_a\\_drone\\_for\\_that](http://ted.com/talks/andreas_raptopoulos_no_roads_there_s_a_drone_for_that)

**The City of Detroit** has had a dwindling population since the 1950's and now encompasses empty dwellings with a total size equivalent to that of Manhattan Island. To remove the feedback effect of people leaving due to living in near empty neighbourhoods and to decrease unemployment levels **Toni Griffin** plans to reorganise the city neighbourhoods by re-attributing empty land plots (as pictured) and allow local entrepreneurs to set up businesses in unoccupied dwellings. [ted.com/talks/toni\\_griffin\\_a\\_new\\_vision\\_for\\_rebuilding\\_detroit](http://ted.com/talks/toni_griffin_a_new_vision_for_rebuilding_detroit)

