

New British Inventors



Foreword

Thomas Heatherwick

Ever since I was little, I have been interested in ideas and problem-solving. But this didn't seem particular just to me. Whether in the worlds of buildings, food, computing, cars, clothes or sculpture, the things that seemed to capture people's imagination were based on new ideas. The word 'invention' was there in the middle, gluing together all of the things that fascinate people.

As I grew older, it seemed natural to want to be an inventor, but it was a surprise to find that there were no courses called 'inventing'. Instead, the world of coming up with ideas was chopped up into lots of separate areas such as art, architecture, science, landscape design, engineering and product design. At that time 'design' stood out as the unpretentious word in the middle, even though it often was, and still is, associated with style rather than ideas.

Excitingly, these days, there seems to be a move back to a spirit of entrepreneurship and idea-hunting. New British Inventors introduces designers from this new generation ranging from recent graduates to experienced practitioners, and shows that once more we seem to be celebrating and reclaiming the notion of the inventor, without the word 'mad' tagged-on at the beginning.



© Elena Heatherwick



MPavilion canopy detail by
Amanda Levete Architects

© Kane Jarrod

Introduction

Graham Sheffield, CBE
Director Arts, British Council

The New British Inventors campaign celebrates pioneering British designers and creates a platform for international debate about the potential of design to shape the future.

This publication celebrates an emerging generation of British inventors that is developing new modes of thinking and shaping advances in many fields of design. Operating across a range of scales these innovators have been forging new techniques and working practices, technological advances and inventive designs. They have the potential fundamentally to impact on everyday lives. And whether in architecture, design or fashion they capture the popular imagination.

We are grateful to Thomas Heatherwick for his support for the campaign which was launched in conjunction with the major touring exhibition *Inside Heatherwick Studio*.

The campaign celebrates many of the attributes of the studio's own inventive approach: its preparedness to invest time in research, a desire for materials experimentation and a positive approach to risk-taking. These are attributes that we believe should be encouraged in contemporary design.

The New British Inventors pamphlet offers an insight into the world of design inventions, through a selection of ten diverse practices and projects. Besides their individual background and scale of their outcomes, each one of the ten stories celebrates innovation through design research and collaborations. The directory at the end of the pamphlet, is a useful tool to further explore British design, it includes from design museums and institutions to foundations and design festivals.

We hope the pamphlet together with the associated programming, including talks and workshops, will act as a stimulus to discussion and debate. The British Council aims to highlight the new ideas, creative processes and design Inventions of this emerging generation of British designers. We hope the New British Inventors campaign will broaden perspectives on contemporary practice, and create collaboration between designers and cultural institutions around the world.

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Gardens by the Bay by Atelier
Ten, Atelier One, Wilkinson Eyre
Architects, Grant Associates

© Atelier Ten archives

New British Inventors: The Bridge between Past and Future

Gian Luca Amadei
Programme Manager
Architecture Design Fashion
British Council

“Risk is exciting because it is about progress and exploration and involves intuition”, says British architect Amanda Levete. The unexpected consequences that emerge from pioneering new research and testing new materials have driven Levete’s design for the MPavilion in Melbourne, which opened in 2015. Like Levete, generations of British architects, engineers and inventors have actively embraced risk-taking and, as a consequence, influenced the progress and transformation of the world we live in on many levels and scales: from devising manufacturing processes to implementing new communication technologies. Work by the designers featured in this publication suggests that the British tradition of invention is fully alive and that an emerging generation of British inventors is driving change.

The aim of the New British Inventors campaign is to look at the current wave of British designers through the prism of invention. Design engages with new thinking as well as challenging the relationship between itself and other disciplines such as technology, science and even medicine. The vibrancy and diversity of the UK design scene has attracted inventors and thinkers alike, providing a platform for experiment, new ideas and innovations. In the UK, design education is contributing to the growth of design thinking and experimentation; offering the future designer the challenge of speculative projects that stimulate critical thinking, and the opportunity of testing new processes, materials and manufacturing techniques.

British inventors have a long history of developing extraordinary solutions that have helped change everyday life, from the pencil to the Internet. A recent book, *Iron, Steam & Money: The making of the Industrial Revolution* (2014) by Roger Osborne, argues that, ‘it was a single generation of British artisans who made possible Britain’s transition to industrialisation and transformed the prospect of humanity.’ Conditions were ripe for an Industrial Revolution in 18th-century Britain, writes Osborne. British inventors were a breed of resourceful and independent entrepreneurs whose growing influence allowed them access to the finance needed to fuel innovation. In addition, they not only shared an independence of thinking but also an open-minded approach to expertise from



MPavilion, daytime view, detail
© Kane Jarrod

abroad. This was the three-part formula for a catalyst that transformed their ideas into machines, processes and materials.

Through design, inventors are able to put their ideas into practice, often despite the limited manufacturing resources available in the UK and many designers have become entrepreneurs and producers of their own designs. Part of this process is driven by the strong desire of British designers to innovate by pioneering research and development in areas such as new materials, by establishing their own brands and, ultimately, by taking control of the whole cycle of production from inception to realisation. Proposing new models that respond to the changing culture of production and consumption gives designers the potential to drive economic development.

This is the case with Sugru, the silicon rubber invention of designer and entrepreneur Jane ni Dhulchaointigh. This new material looks and feels like colourful putty but it bonds to a wide variety of surfaces and cures in air, enabling users to fix objects and appliances that would have been otherwise thrown away or recycled. It invites consumers to try their hand at design, as well as making and repair. Such ideas could stimulate a major cultural shift in terms of consumption and design aesthetics, by giving an object a new lease of life rather than replacing it.

The determination and drive of some designers in putting their designs into production, highlights a challenge within



Hiking boot fixed using Sugru
© Sugru

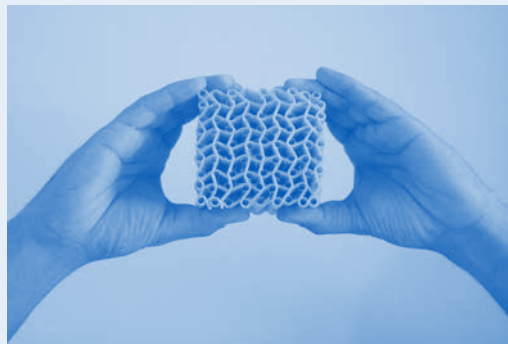
British inventors have a long history of developing extraordinary solutions that have helped change everyday life, from the pencil to the Internet.

the British economic development. In recent literature some economists and writers suggested that Britain's current problem with productivity goes back to the economic slowdown of the 1970s. A few suggest that it is possible to revive productivity by investing in new research and experimentation to stimulate a broad range of new inventions, across all the industrial sectors from communications to medicine. While there may not be a 'new Industrial Revolution' in the making, there certainly is a new generation of skilled people in the UK, with the capacity to lead a new phase of industrial evolution through design innovation. Advances in digital technologies – both in research and production – such as 3D printing and new means of accessing and sharing knowledge, are stimulating the new wave of creativity.

Sheridan Coakley, founder of the independent London-based furniture company SCP, told me recently that in his experience British designers have resisted design movements and set themselves apart, wanting to be independent thinkers rather than follow trends; Coakley sees something similar in British architecture and fashion. This independent and individual approach can be seen in the way designers step outside their professional framework and look across to other disciplines for inspiration, not only in terms of research and materials but also in order to pioneer new applications in the design field.

And this free-ranging, lateral approach to design can benefit the wider economy.

Advances in digital technologies – both in research and production – such as 3D printing and new means of accessing and sharing knowledge, are stimulating the new wave of creativity.

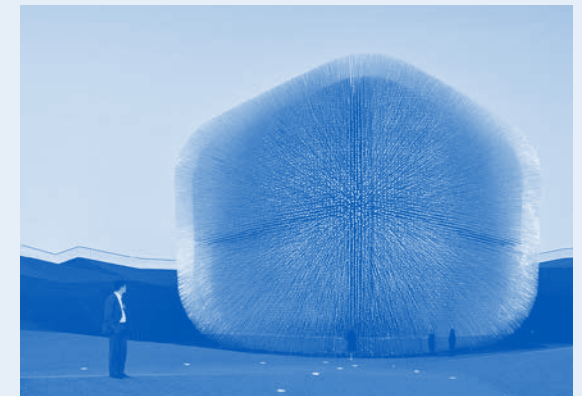


3D woven prototype
© Guillaume Couche

Take designer Oluwaseyi Sosanya, who studied details in the structure of bulletproof garments to find out how woven materials can be programmed to withstand extremely high impacts. Through that research, Sosanya has developed a device that weaves three-dimensional structures, which has applications in fields as disparate as the medical and aerospace industries. A deliberate blindness to barriers between disciplines can also be productive. For example, Formtexx designs and manufactures metal features and façades with the precision of automotive manufacture; it addresses the complex nature of double-curvature façades using videogame software.

Thomas Heatherwick is well-known as a creative who has moved beyond his role as a designer and is developing pioneering projects at a range of scales. Heatherwick's approach to design thinking, which often takes inspiration from manufacturing technology, is helping to shift the perception of the designer from that of a professional who responds to a brief, to that of an inventor who initiates change. Perhaps at another historical time, designers such as Heatherwick or the transport design consultancy PriestmanGoode would have gravitated towards more technical and industrial spheres, but in the contemporary era, the dynamic sector of design is attracting the most ambitious creative thinkers.

British inventors benefit from a diverse context and research methods that are constantly being challenged and inspired by



UK Pavilion, Shanghai Expo 2010
by Heatherwick Studio
© Iwan Baan

expertise from other countries. The success of British design schools in attracting students from overseas has created an international and well-connected design community in the UK. This condition, allows for creative exchange that is cross-disciplinary and inclusive. Although this approach may appear to be new and specific to our time, it is very much in line with the thinking and attitude of those British inventors that shook the world with the Industrial Revolution. It is a way of working that is as much about the collective as the individual, and involves a cohesive mapping and organisation of skills that is relevant to a specific project.

The UK has a magnetic pull that attracts ambitious people from other parts of the world through its diverse mix of backgrounds, expertise and cultures. These aspects

combined with an education system that helps the individual discover his or her critical and individual voice, generates a stimulating environment for inventors. Many British designers are major players in the international scene, working, teaching and producing in other parts of the world through collaborations, residencies and other cultural and commercial opportunities.

Through these experiences we are gaining a deeper understanding of the world we live in and the potential of digital and other new technologies to benefit society. British researchers and inventors are exploring unexpected crossovers between areas of expertise such as automotive manufacturing technologies and videogame design. As Osborne writes: “we are beginning to understand that the world and the future of humanity depends on our instincts as makers and doers, as solvers of practical problems through mental and technical ingenuity.” If we frame this quote in the broader context of globalisation, then perhaps the unique combination of independent thinking with minds open to diversity, intuition and entrepreneurship, will create a bridge between the past and future of invention.

The UK has a magnetic pull that attracts ambitious people from other parts of the world through its diverse mix of backgrounds, expertise and cultures.



World View Capsule in a mobile unit
for transport and takeoff
© PriestmanGoode

Case Studies



Left: MPavilion,
daytime view

Below: Victoria and Albert
Museum new courtyard
and galleries

Research in new building materials and technologies is at the heart of Amanda Leveté's approach to architecture practice and design. In particular, Leveté welcomes the unexpected result of experimentation as a unique opportunity to discover new applications for materials.

Leveté's approach is evident in the design for the MPavilion 2015, a temporary structure located in the Queen Victoria Gardens in Melbourne. In this project, Leveté employs leading engineering from the maritime industry to create a series of three- and five-metre-wide petals made of ultra-thin translucent composite and carbon fibre.

Leveté's MPavilion is the result of the collaboration with Australian marine specialist mouldCAM and Arup engineers. From the early stages of the research and concept development, Leveté wanted to design a structure that would both resonate with the location and feature cutting-edge building technologies. A key feature to the design is the use of carbon fibre both in the main pavilion structure and canopy solution. The slender carbon fibre columns conceal the wiring for LED lighting in the capitals of the pavilion's columns, and the speakers incorporated into its canopy.

The development of new versions of familiar materials and enhancing their performative qualities are also at the heart of Leveté's Victoria and Albert Museum new courtyard and galleries. Leveté's studio researched the use of porcelain tiles for the new courtyard; the challenge was to use a material that reconnected both with the history of the building and its content and function.

Amanda Leveté Architects

MPavilion



© Amanda Leveté Architects

Client
Naomi Milgrom Foundation

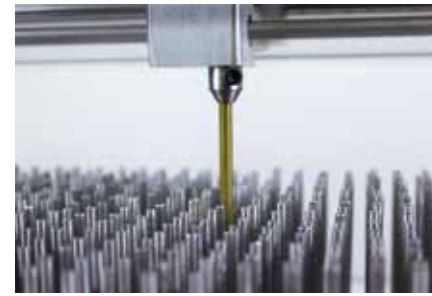
Architect
Amanda Leveté Architects

Engineer
Arup (Melbourne & London)

Fabricators
mouldCAM

Oluwaseyi Sosanya

3D Weaving Machine



© Guillaume Couche

Opposite: Oluwaseyi Sosanya holding a prototype of the Single Lace Shoe featuring 3D woven soles

Above: 3D Weaving Machine, warp posts

Below right: Details of the loom

Sosanya developed the initial concept for the 3D Weaving Machine while studying at the Royal College of Art, where he worked closely with technical textile designer Sophie Zajicek and learned how to weave on a traditional handloom. They explored three-dimensional textile structures produced with traditional methods, including honeycomb weaves that Zajicek had developed. Further inspiration came from a visit to the Huddersfield Textile Centre of Excellence in Yorkshire, where Sosanya came in contact with the most technologically advanced woven materials. Sosanya explains he became “interested in producing materials in a single process that could maintain the properties of the impact materials commonly used in our active wear.”

This led him to look into the structure of high impact garments such as bulletproof vests made from several layers of woven UHMWPE (Ultra-High-Molecular-Weight Polyethylene). The 3D Weaving Machine obtains the same effect in a single woven structure.



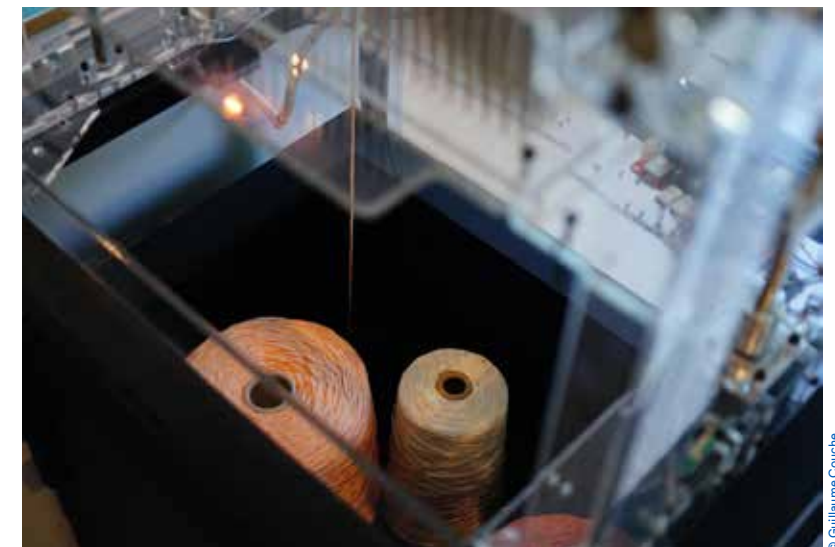
© Guillaume Couche

Sosafresh
sosafresh.com

Sophie Zajicek
sophie Zajicek.com

Footwear Designers
Lixian (Lisa) Teng
and Tomiwa Adeosun

Leather surface
Rozanna Walecki
(Textile designer)



© Guillaume Couche



© Jaguar Land Rover

Jaguar Land Rover Research
and Technology Team

360 Virtual Urban Windscreen & Follow-Me Ghost Car Navigation

360 Virtual Urban Windscreen and Follow-Me Ghost Car Navigation are part of a suite of new concept technologies that Jaguar Land Rover is developing to reduce the potential for accidents.

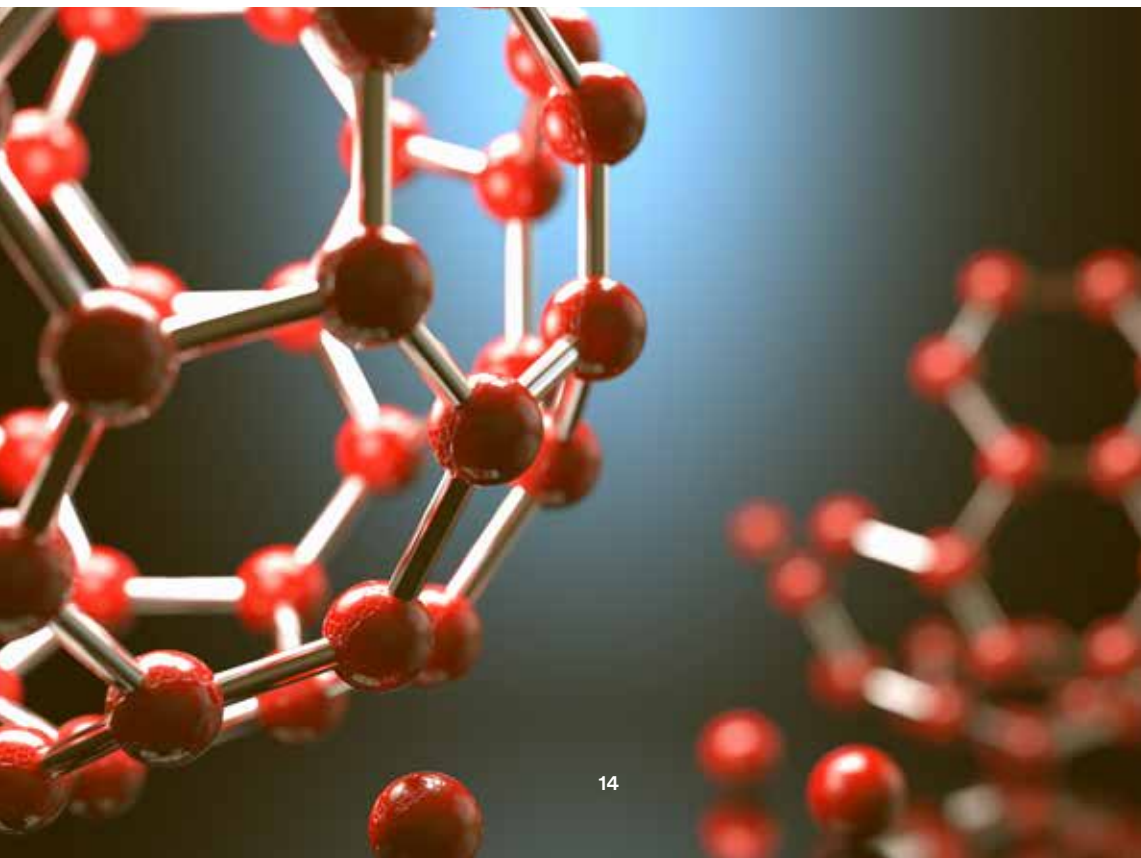
They will give drivers a 360-degree view out of their vehicles, uninterrupted by the pillars that support the roof. Inside the car, a screen in the surface of each pillar will take a live video feed from cameras covering the vehicle's blind spots, thus enabling drivers to see pedestrians, cyclists and other vehicles all around the car. The system automatically makes pillars transparent when drivers indicate to change direction; look over their shoulders before overtaking, or as the vehicle approaches a junction.

“Our ultimate aim is to reduce road accidents and enhance the urban driving experience,” says director of Research and Technology Dr Wolfgang Epple. “The Jaguar Land Rover research team is developing this technology to improve visibility and to ensure the driver has the relevant information at the right time. If we can keep the driver's eyes on the road ahead, and present information in a non-distracting way, we can help drivers make better decisions in the most demanding and congested driving environments.”

The ‘transparent pillars’ may be combined with a ‘heads-up’ display to show the movement of other road-users, on the car's virtual windscreen. The 360 Virtual Urban Windscreen could also be connected to roadside infrastructure and businesses via the Cloud, providing information from fuel station prices to the location of parking spaces.

Dr Rodolfo Venegas

CarbonAir



Opposite: Carbon
atomic structures

Right: Carbon granules



CarbonAir, a spin-out company from a British university, is exploiting the newly revealed sound-absorbing qualities of activated carbon, which could, for example, make rail transport quieter or improve the acoustics in buildings.

Activated carbon is the material you get if you bake organic materials such as wood or coconut shell until nothing is left but carbon, and then drive vapour through it. This mimics a process that occurs in nature and creates a material that can 'breathe in' and hold gases, including air. Traditionally, it has been used to filter liquids and gases but researchers in the University of Salford's Acoustic Research Group discovered that it can do a lot more.

They spotted two key characteristics of activated carbon that had previously been passed over. Any vessel containing activated carbon granules will hold more air than an 'empty' one but the pressure inside it does not rise because the extra molecules are captured by the carbon.

By adding activated carbon to a small air spring or air shock, you can make it behave as if it contains a greater volume of air, giving it a lower spring rate and greater isolation against vibration. Used to absorb noise, materials made with activated carbon can be made to behave as if they have much greater depth, making them more effective, especially in controlling lower-frequency sound.

CarbonAir is commercialising the invention through a series of collaborative projects in markets from automotive suspension to agricultural tyres and from vacuum cleaner silencers to advanced thermal/acoustic building insulation materials.

The research was firstly initiated thanks to Dr Fouad Bechwati. CarbonAir still works closely with Salford University Acoustic Research Group and the group of inventors who made the company possible including Dr Olga Umnova, Dr Rodolfo Venegas, Professor Andy Moorhouse, Dr Andy Elliott, Professor Trevor Cox and Dr Mark Avis.

CarbonAir
carbonair.eu



© Pascal Guiraud

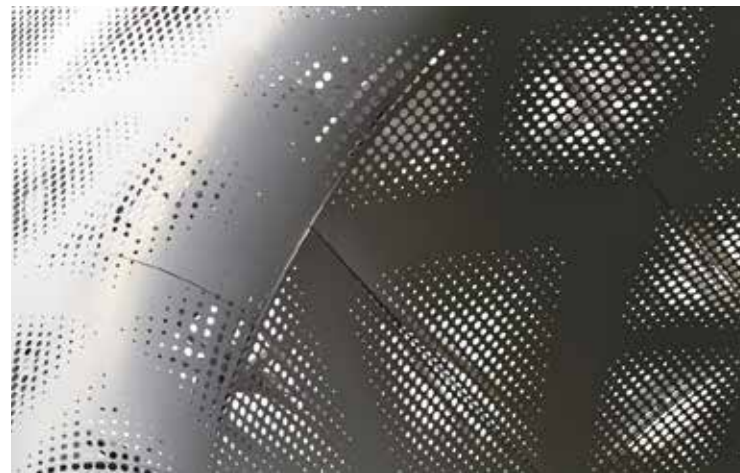
Opposite: L'Atoll arched structure featuring double curved panels developed by Formtexx for L'Atoll retail complex

Below: Close-up detail of the cross-junction double curved panels for L'Atoll retail complex

Computers have enabled architects to design structures with complex free-form geometries, but creating surfaces such as curved façades has proved a challenge. Now though, Formtexx, which designs and manufactures bespoke, double-curvature metal features, façades and rainscreens has invented an innovative manufacturing process that makes it possible to produce them quickly and cost-effectively.

The solution is a pioneering technology that combines techniques in automotive bodywork manufacture with high level gaming software programmes and 3D surface manipulation. It is the brainchild of designer and inventor John Gould, who has been researching ways to handle the massive amounts of data needed to handle non-repeating, free-form geometry and complex forms. And the new process is so effective that it can produce a multi-curvature panel every 20 minutes, regardless of how complex or different each may be. "I was looking at all this multi-curvature architecture that was being produced," says Gould, "and it struck me that they were really struggling when it came to translating the architect's vision into reality."

John Gould
Formtexx



© Formtexx

To achieve this, Formtexx combines the expertise and resources of three leading firms: tool-maker Whiston Industries, software developer Stargate Resources and digital design and fabrication company Barron Gould. One of its most recent projects is L'Atoll, a retail development in West France designed by Antonio Virga Architecte and AAVP Architecture. L'Atoll has a stunning, continuous façade of double-curve, perforated aluminium panels that are backlit at night, to create an impressive, iridescent mesh veil.

Formtexx has also recently completed the Softbridge extension to the Middle East Centre at St Antony's College, Oxford University. The three-storey landmark building designed by Zaha Hadid Architects houses a library, archive and lecture theatre. Its sinuous, softly reflective steel-clad form required complex, double-curved panels in stainless steel.

Barron Gould
texxus.com

Formtexx
formtexx.com

Stargate Resources
stargate-resources.com

Whiston Industries
whistonindustries.com

Atelier Ten and
Wilkinson Eyre

Gardens by the Bay



Opposite: Aerial view
of Cloud Forest and
Flower Dome

Left: Inside Biodome

The orientation of the superstructure and the innovative, minimal envelopes together create high levels of light penetration to nourish the plants. Complex artificial interior environments enable Mediterranean and mountain plants to grow despite the tropical of Singapore.

Although the conservatories are among the largest climate-controlled glasshouses in the world, they use innovative strategies to minimise energy demand using materials and shading to reduce cooling demand in the biomes. The façade uses double-glazing to control radiant transmission and surface temperatures, while retractable external shades modulate internal daylight levels. Passive environmental control in the buildings includes the use of displacement ventilation; radiant cooling in pathways and pavements; a desiccant dehumidification system, and direct evaporative humidification in the Cloud Forest Dome.

Three waterfront gardens developed by Atelier Ten, working with Grant Associates Wilkinson Eyre Architects and Atelier One, are helping to define Singapore as one of the world's premier tropical garden cities. An international example of advanced environmental design practice, the Bay South project comprises 54 hectares of landscaped gardens on reclaimed ground in Singapore's Marina Bay. The 20,000m² complex features cooled conservatories and 18 large scale structures, 25m to 50m high, called 'Supertrees' that support vertical gardens.

The project draws on the tradition of great British inventors such as Decimus Burton, who designed the wrought iron Palm House in Kew Gardens, London (completed in 1848), and the neighbouring Temperate House. The two cooled conservatories in Singapore are effectively a highly modern, technologically advanced version of the Kew Glasshouses. Sharing construction principles with their Victorian forebears – but built in a fraction of the time – these are hybrid structures of a gridshell supported by giant steel arches.

Atelier Ten
atelierten.com

Grant Associates
grant-associates.uk.com

WilkinsonEyre
wilkinsoneyre.com

Atelier One
atelierone.com



© Darren Chin



© James Morris

Hugh Broughton Architects

Halley VI Antarctic Research Station

Opposite: North view
of Halley VI station

Right: Observation deck



© James Morris

The Halley VI Antarctic Research Station is the mostly southerly science research station operated by the British Antarctic Survey (BAS). The modular structure is located on the 150-metre thick, floating Brunt Ice Shelf, which moves 400 metres per annum towards the sea.

The constant movement of the ice shelf meant that the architects had to design a unique solution to allow the station to effectively float on the ice, without sliding or, by contrast, holding onto the ice-shelf permanently. For Halley VI the London-based practice developed a unique system for the modular units to be supported on giant steel skis and hydraulically driven legs. The hydraulic legs allow the station to mechanically 'climb' up out of the snow every year to avoid being buried. And as the ice shelf moves out towards the ocean, the modules can be lowered onto the skis and towed to a new, safer location further inland.

In this way, Halley VI can therefore continue to respond to the changing needs of Antarctic science. The design provides flexibility for the station to be adapted, rearranged and relocated, prolonging its design life. This mobility and flexibility means that the new station will survive and perform on the ice for far longer than any of its distinguished predecessors.

A research station has been occupied continuously at Halley since 1957. In 1985, scientists working there first observed the hole in the ozone layer. Halley V was completed in 1992, but its occupation eventually became precarious. It had moved too far from the mainland to a position where the ice shelf risked calving as an iceberg. As the station's legs were fixed in the ice it could not be moved. So Hugh Broughton Architects' design addressed this issue and proposed an effective solution for the new station.

Hugh Broughton Architects
hbarchitects.co.uk

AECOM – Engineering
aecom.com

Billings Design – Cladding
billingsdesign.ie

Galliford Try – Contractor
gallifordtry.co.uk

7-t – CGI visuals
7-t.co.uk



© Colin Ross

Duncan Fitzsimons

Morph Folding Wheel

Duncan Fitzsimons successfully re-invented the wheel as a student at the Royal College of Art in London. He went on to create the Morph Folding Wheel, a foldable wheelchair wheel that collapses down to nearly half its original size for easier storage and transportation.

The design features a hard-wearing composite frame with collapsible spokes and a segmented rim that is locked in place by a quick-release axle inserted through the hub. This solution offers wheelchair users significant improvements in mobility.

The design began as an attempt to do something new and exciting for the world of bicycle design. Fitzsimons saw a way for a large circle to fold down into a smaller shape; testing the idea out with a variety of mock-up prototypes and processes from card cut-outs and drawing pins to chopping up a real bike wheel. "In parallel with this development process," says Fitzsimons, who has been working on the project for seven years, "I was incredibly lucky to be chosen as part of the Royal College of Art's Selected Works programme, receiving funding and support from the college's incubator InnovationRCA. This played a vital role in the eventual development of the folding wheel as it enabled me to apply for a patent on the core technology before showing it to the world."

Morph Folding Wheel is now manufactured and distributed by specialist US healthcare company Maddak.

Opposite: Morph Folding Wheel store-away bag

Below: Work in progress prototypes (left) and final design (right)



© Colin Ross

Duncan Fitzsimons
7th-london.com

InnovationRCA
rca.ac.uk/research-innovation/innovation

Maddak
maddak.com/morph-wheels-folding-wheels-p-28259.html

Jane ni Dhulchaointigh

Sugru



© Sugru



© Sugru

Opposite: Digital camera
protected using Sugru

Left: Computer cables
repaired using Sugru

Sugru is a patented, formable silicone that can be used for fixing or improving objects. Invented by designer and entrepreneur Jane ni Dhulchaointigh, this mouldable putty is a formulation of Formerol, a type of silicone that can be designed with variable physical properties. Sugru, which means play in Irish, can be shaped in any form and after 24 hours will stick permanently to materials such as glass, metal, wood, plastics and fabrics, creating uses from repairing the body-cases of cameras to enhancing the ergonomic properties of tool handles.

Ni Dhulchaointigh prototyped her revolutionary idea while studying for her MA in Product Design at the Royal College of Art in London. In 2004, she started gathering a team of specialists and scientists in the silicone industry to help her turn the new invention into a real product and set up her company with entrepreneur Roger Ashby. The following year, Nesta, the UK's innovation think-tank, awarded Sugru a Creative Pioneer grant.

Ni Dhulchaointigh feels that Sugru has always been about so much more than itself. "We felt strongly that we could help fuel a conversation about why a culture of fixing is important," she explains. The company also developed a 'Fixer's Manifesto' to encourage people to save resources by extending the life or utility of objects. "It hit a nerve and was shared all around the internet. We printed letterpress posters, and made them available online," she adds.

Sugru
sugru.com

Nesta
nesta.org.uk



© PriestmanGoode

PriestmanGoode World View

Opposite: Close-up of the
World View Capsule

Below: World View Capsule
taken to the edge of the
atmosphere by a helium
balloon

World View is a cutting-edge design concept for a lightweight pressurised vessel to take passengers to the edge of space. Developed by British multidisciplinary design practice PriestmanGoode, the capsule utilises high-altitude balloons to access near space, the region of the atmosphere 20km to 100km above sea level. As well as creating opportunities for extreme tourism – a helium balloon will lift the space capsule, six passengers and two crew to the edge of space – the capsule also functions as a science unit to collect data.



© PriestmanGoode

The design prioritises reducing the amount of infrastructure needed to launch the capsule and avoiding heavy fuel consumption, making it more environmentally friendly than rocket ships. It should not only provide a more leisurely atmosphere for passengers, but would also create a reliable, durable and dependable mode of exploring the edge of space. The journey will take around an hour and a half, followed by two to six hours at an altitude of 30km, so that passengers can take in the views of the Earth below, the curve of its surface and the blackness of space beyond.

PriestmanGoode is a leading global travel and transport design consultancy. Besides World View, the practice is currently working on the development of Moving Platforms, a design strategy that challenges the future of rail travel by creating interchange facilities between moving trains, and Air Access, which aims to improve air travel for passengers with reduced mobility.

PriestmanGoode
priestmangoode.com

Paragon
paragonsdc.com

World View Experience
worldviewexperience.com



Directory

This listing includes those organisations that are relevant to this publication, for further enquiries please contact: newbritishinventors@britishcouncil.org

Academic Institutions

Royal College of Arts
rca.ac.uk

Imperial College London
imperial.ac.uk

**Huddersfield Textile
Centre of Excellence**
textilehouse.co.uk

UAL
arts.ac.uk

**Salford University
Manchester**
salford.ac.uk

Museums

Design Museum
designmuseum.org

Victoria and Albert Museum
vam.ac.uk

Science Museum
sciencemuseum.org.uk

Organisations

Design Council
designcouncil.org.uk

Crafts Council
craftscouncil.org.uk

**Royal Academy
of Engineering**
raeng.org.uk

RIBA
architecture.com

Royal Society
royalsociety.org

**Royal Society for
the encouragement
of Arts (RSA)**
thersa.org

The Lighthouse
thelighthouse.co.uk

Made North
madenorth.co.uk

Trusts and Foundations

James Dyson Foundation
jamesdysonfoundation.co.uk

The Sorrell Foundation
thesorrellfoundation.com

**The Helen Hamlyn
Centre for Design**
[rca.ac.uk/research-innovation/
helen-hamlyn-centre](http://rca.ac.uk/research-innovation/helen-hamlyn-centre)

Wellcome Trust
wellcome.ac.uk

Festivals

Clerkenwell Design Week
clerkenwelldesignweek.com

London Design Festival
londondesignfestival.com

**London Festival
of Architecture**
londonfestivalofarchitecture.org

Sheffield Design Week
sheffielddesignweek.co.uk

Trade Shows

100% Design
100percentdesign.co.uk

Design Junction
thedesignjunction.co.uk

Tent London
tentlondon.co.uk



Credits

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design.britishcouncil.org/

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The British Council global arts team works with the best of British creative talent to develop innovative, high-quality events and collaborations that link thousands of artists and cultural institutions around the world, drawing them into a closer relationship with the UK. The British Council creates international opportunities for the people of the UK and other countries and builds trust between them worldwide. We are a Royal Charter charity, established as the UK's international organisation for educational opportunities and cultural relations. Our 7,000 staff in over 100 countries work with thousands of professionals and policy makers and millions of young people every year through English, arts, education and society programmes. We earn over 75% of our annual turnover of nearly £700 million from services which customers pay for, education and development contracts we bid for and from partnerships. A UK Government grant provides the remaining 25%. We match every £1 of core public funding with over £3 earned in pursuit of our charitable purpose.

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Halley VI Science Module
by Hugh Broughton Architects

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