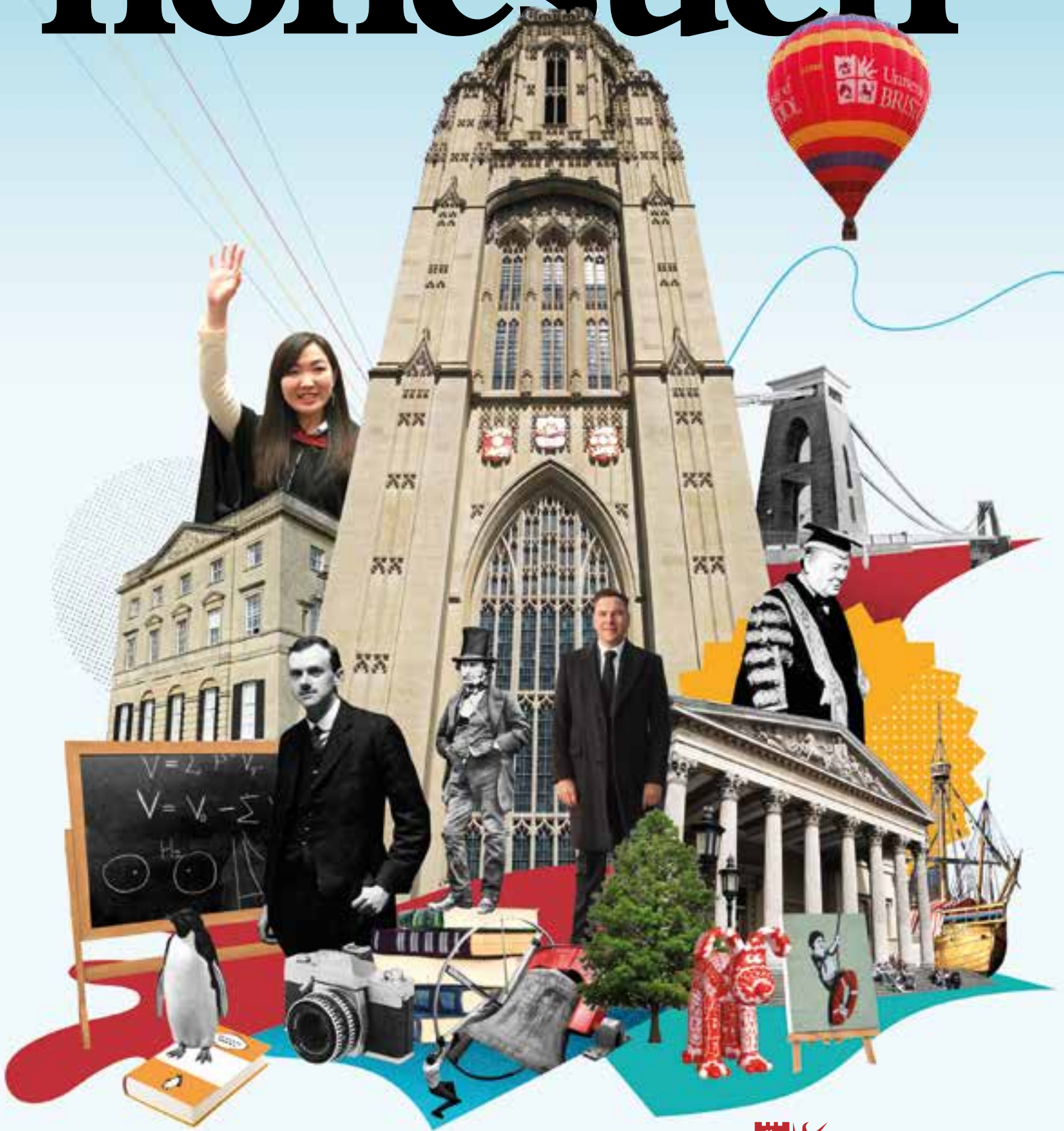


# nonesuch



CREATING A LEGACY

## Welcome



Next summer, Professor Sir Eric Thomas (Hon LLD 2004) will step down as Vice-Chancellor after 14 years of service. So it seems fitting that, in this edition of *Nonesuch*, we look at what it means to leave a legacy, both as individuals and as a university.

Our University is continually redefining its legacy: in its scholarship, its research and its impact on the city. And we, as Bristol alumni, are all part of that legacy too.

I would like to thank all of you who responded to our survey about the qualities we should seek in our future Vice-Chancellor and President. Your insights have been very valuable, and the result of the appointment process will be shared with you as soon as possible. If you are interested in representing the alumni community on one of the University's decision-making bodies, you can find details of upcoming elections inside (p29).




I was delighted to see so many of you at our Best of Bristol Alumni Weekend in July. Do put next year's dates in your diary now (Friday 10 to Sunday 12 July 2015) or, if you are living overseas, I hope you are able to join us at one of the international events that we've planned for 2014/15 (p29).

*Bill Ray*

**Bill Ray** (BSc 1975)  
Chairman of Convocation and the Alumni Association

## Keep in touch

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 [bristol.ac.uk/alumni/linkedin](http://bristol.ac.uk/alumni/linkedin)

## Cover images

From centre working clockwise: The Wills Memorial Building // The University of Bristol hot-air balloon // Clifton Suspension Bridge // Jazmin Sawyers (LLB 2013-) // Sir Winston Churchill // The Matthew of Bristol // The Victoria Rooms // Banksy // Bark at Ee // Great George // David Williams (BA 1992) // Isambard Kingdom Brunel // The Penguin Archive // Paul Dirac (BSc 1923) // Institute of Physics // Royal Fort House // Graduating student

Find out more at [bristol.ac.uk/nonesuch](http://bristol.ac.uk/nonesuch)

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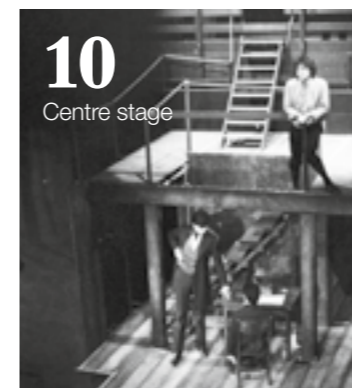
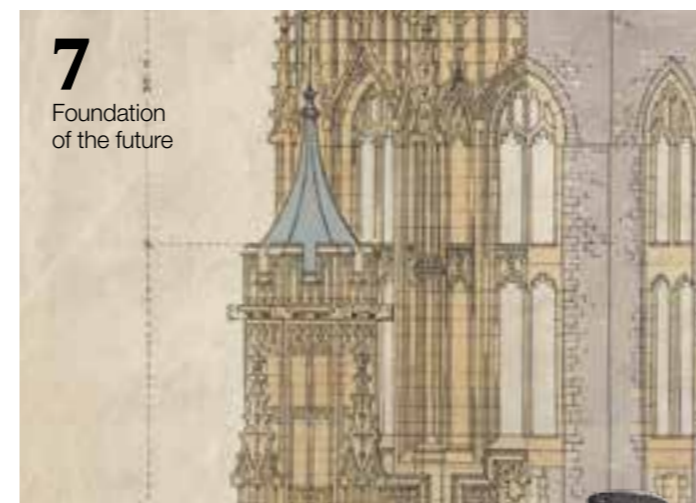


Autumn 2014

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**nonesuch**

Autumn 2014

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## Ready. SET. Squared.

Enterprise

A University business incubator, SETSquared, has been ranked the best in Europe, and second best in the world by University Business Incubator Index.

Over the past decade, despite one of the deepest recessions since the First World War, SETSquared has accelerated the growth of high-tech start-up companies, providing world-leading mentoring and networking opportunities, as well as access to investors around the globe.

The enterprise hub, based in Bristol's Engine Shed, has worked with more than 1,000 high-tech start-ups and attracted over £1 billion in investment.

Nick Sturge, Director of Engine Shed, said: 'We have always endeavoured to operate in a global context and this

award confirms that we can provide the best incubation environment for local start-ups that will become global businesses.'

New products developed by SETSquared start-ups include swine flu detection kits, microchips that speed up internet connections, and security systems designed to protect companies against terrorism without impeding world trade.



## Switching off autoimmune diseases

Medicine

In a breakthrough that could improve the lives of millions worldwide, Bristol scientists have discovered how to 'switch off' autoimmune diseases like multiple sclerosis and Type 1 diabetes.

Autoimmune diseases trick the body into destroying healthy tissue. But now, researchers from Bristol have discovered a way to retrain the immune system and reinstate self-tolerance, so the body remains fully armed against infection. By specifically targeting the cells at fault, this approach removes the need for immunosuppressive drugs that typically incur unacceptable side effects.

Funded by the Wellcome Trust, the study has received worldwide media coverage, and the treatment is now undergoing clinical development through biotechnology company Apitope, a spin-out from the University of Bristol.

## A Bristol Beacon Campus

The former Habitat store, also known as Beacon House, is to be given a new lease of life as part of the University campus.

The Grade II-listed building on the corner of Queen's Avenue and Clifton Triangle will become a central study hub for students. Current plans for the space include the provision of 350 individual study seats, group areas, a café and a bookshop.

Acquiring Beacon House is the latest in a series of University investments in teaching and research facilities to improve the experience of Bristol students.

## In numbers

### 54 days at sea

Sadly, after encountering unforeseen and treacherous weather conditions at sea, **Elsa Hammond** (PhD 2012-) was forced to divert from her mission to break the solo women's record for rowing 2,400 miles across the Pacific Ocean.

<b>1,000</b> nautical miles	<b>8,000</b> calories a day
<b>864</b> hours of rowing	<b>3</b> broken oars

## Tough act to follow

Alumni

**Matthew Warchus** (BA 1988, Hon DLitt 2010) is to replace **Kevin Spacey** as Artistic Director of **The Old Vic**, one of the oldest theatres in London.

Warchus, who is currently an Artistic Associate at The Old Vic, has directed more than 70 hit shows and plays in London and on Broadway, including *Matilda* and *Alan Ayckbourn's* trilogy, *The Norman Conquests*, which won a Tony award in 2009. Warchus also won the Queer Palm award at the 2014 Cannes Film Festival for *Pride*, his film about lesbian and gay activists during the 1980s miners' strike.

Broadcast illustration © Alberto Antoniazzi // Matthew Warchus © Jane Bown



## Centenary Campaign passes £100 million

Philanthropy

Thanks to support from more than 19,500 alumni, friends, staff and students, Bristol University's Centenary Campaign passed its original £100 million target in July, six months ahead of schedule.

Donations to the Centenary Campaign support a wide variety of programmes and projects within the University, as well as important outreach and widening participation work.

Initiatives that have been made possible by campaign funds include Access to Bristol and IntoUniversity, which together have enabled thousands of disadvantaged secondary school students to experience university.

Centenary Campaign Chair and Pro-Chancellor, Roger Holmes (BSc 1981, Hon LLD 2013), said: 'This is a tremendous achievement both for, and by, the University. Over 19,500 donors have come together so far to support talented students, life-changing discoveries, and more. The impact of Bristol's Centenary Campaign will be felt for generations to come.'

To read more about the campaign's achievements, and show your support, please visit [bristol.ac.uk/centenarycampaign](http://bristol.ac.uk/centenarycampaign).



## A Royal Fellow

Science

Alumni and staff have been elected to the world's most eminent scientific academy.

Professor Michael Benton (pictured) from the School of Earth Sciences, and alumnus Dr Andrew Mackenzie (PhD 1981), Chief Executive Officer at BHP Billiton Ltd, have both been elected Fellows of the Royal Society. They join a global fellowship of 1,400 outstanding individuals representing science, engineering and medicine, 40 of whom are current Bristol staff and professors. Past Fellows and Foreign Members include Isaac Newton, Charles Darwin and Albert Einstein.

**1 Sliding down Park Street // Alumni**

In May, British artist Luke Jerram transformed Park Street into a giant water slide. Bristol's mayor, George Ferguson (BA 1968, BArch 1971, Hon MA 1999) gave the idea his full backing as part of his Make Sundays Special initiative, just one idea that helped put him in the running for the title of the World's Best Mayor 2014. In the same month, one of the key campaigners in the Mayor for Bristol campaign, Jaya Chakrabarti (BSc 1993), received an MBE in the Queen's Birthday Honours list.



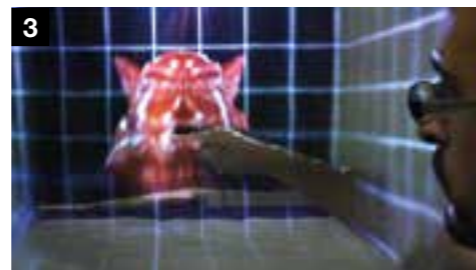
**2 French honour // Alumni**

Annie Burnside (MA 1971), former Warden of Clifton Hill House and teacher in the Department of French, has been made *Chevalier dans l'Ordre National de la Légion d'Honneur*, the highest decoration in France.



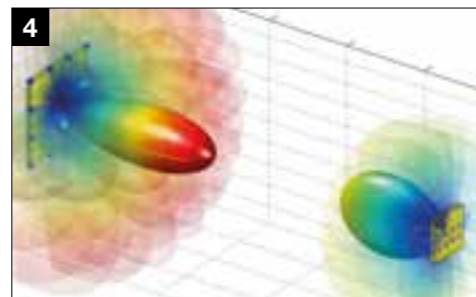
**3 Misting up the future // Engineering**

Bristol's Department of Computer Science has developed interactive computer screens made from mist. MisTable projects a screen onto a curtain of fog and allows users to interact with a computer in a completely new way.



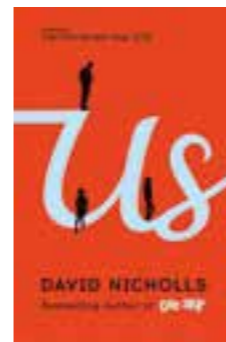
**4 Full speed ahead // Technology**

Bristol researchers have developed technology that can transmit data 50 times faster than the average Wi-Fi and 4G connection. The discovery will pave the way for 5G and improved download speeds.



**5 Manning the books // Alumni**

Author David Nicholls (BA 1988) shot to fame in 2009 with his bestselling novel, *One Day*. His latest book, *Us*, was longlisted for the Man Booker Prize 2014, and tells of a man's plot to win back the love of his wife and repair his troubled relationship with his son.



**6 Graduation hat trick // Alumni**

Richard Lewis (BSc 2014) made Bristol history when he graduated wearing the same gown and silk hood worn by two generations of his family before him, including his father, Peter Lewis (BSc 1980), his grandfather, Michael Lewis (BSc 1954), and his great uncle, Leslie Dobbs (BSc 1933).



**7 Jumping for joy // Alumni**

Current student Jazmin Sawyers (LLB 2013-) won a silver medal in the women's long jump this summer at the Glasgow 2014 Commonwealth Games.



Top Bristol's mayor, George Ferguson  
Above Jaya Chakrabarti



**In brief  
Alumni**



Sonardyne, a leading subsea technology manufacturer established by **John Partridge (BEng 1962)** was awarded the Queen's Prize for Enterprise in Innovation this year.

**Nazir Razak (BSc 1988)** has become CIMB Group Chairman and joined the board of directors for Khazanah Nasional Berhad, the government of Malaysia's strategic investment fund. Another Bristol alumnus, **Tengku Aziz (BSc 1996)**, has succeeded Razak as CIMB's new Chief Executive Officer.

**Jane Leslie (BA 2004)**, aged 65, has become a world champion triathlete after winning the 65 to 69-year-old category at the World Triathlon Grand Final in Edmonton, Canada. Leslie completed a 1,500m swim, 40km cycle and 10km run in 2 hours 47 minutes and 21 seconds.

**Nizar Ibrahim (BSc 2006)** was named one of *National Geographic's* Emerging Explorers in 2014.



## Smoke signals

Students

**A PhD student's research into the impact of tobacco packaging has made a global impact, and is informing policy debate around the world.**

Cigarette smoking is the biggest killer in the UK. But to date, much of the debate around tobacco packaging hasn't been based on objective behavioural measures. Olivia Maynard's (BSc 2010, PhD 2010-) study into the behavioural impact of plain packaging was the first of its kind to do so.

Maynard used eye-tracking technology to monitor the eye movements of adults and adolescents looking at both branded and plain cigarette packs. Her findings showed

that in the case of plain packaging, non-smokers were more drawn to the health warnings than to the branding, suggesting plain packaging could be an effective means of tobacco control.

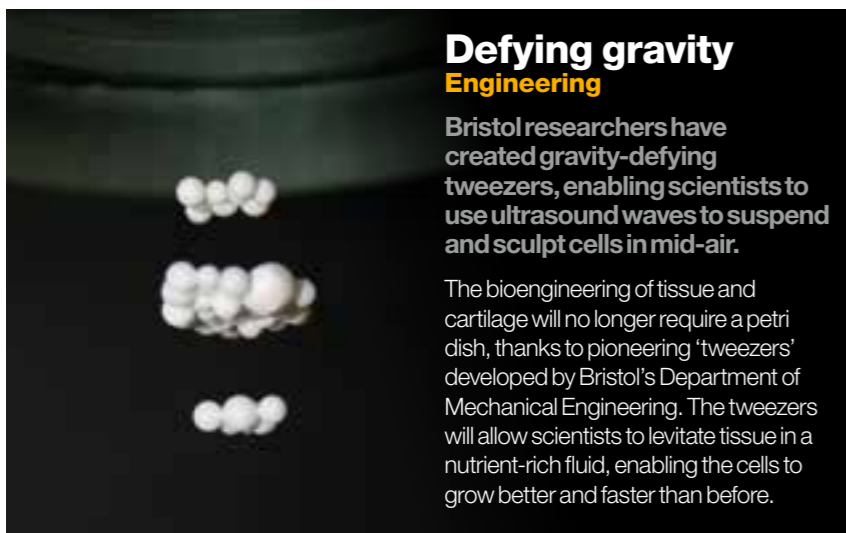
Maynard's research won an Outstanding Early Career Impact award from the Economic and Social Research Council and has already informed policy debate in the UK, Australia and other countries worldwide.

## Defying gravity

Engineering

**Bristol researchers have created gravity-defying tweezers, enabling scientists to use ultrasound waves to suspend and sculpt cells in mid-air.**

The bioengineering of tissue and cartilage will no longer require a petri dish, thanks to pioneering 'tweezers' developed by Bristol's Department of Mechanical Engineering. The tweezers will allow scientists to levitate tissue in a nutrient-rich fluid, enabling the cells to grow better and faster than before.



## Leading Bristol Vice-Chancellor

**Thanks to all of you who shared your thoughts on the future of the University.**

Following the announcement that Professor Sir Eric Thomas (Hon LLD 2004) will step down from his role as Vice-Chancellor next year, Bristol asked alumni, staff and students what they thought made the University special, what challenges and opportunities it faces, and what qualities it should seek in its future leader.

You can now read your feedback online at [bristol.ac.uk/alumni/vcreport](http://bristol.ac.uk/alumni/vcreport). Your insights will guide the University's Appointment Panel during the shortlisting and interview processes this autumn, as it seeks to find the right person to lead Bristol from August 2015.



## Green light for Bristol Environment

**In 2008, Bristol was named the UK's first Cycling City. In 2015, it will be the first UK city to hold the title of European Green Capital.**

Many staff were involved in the city's bid for the award, including members of the Cabot Institute and those involved with the University's Education for Sustainable Development programme. Planning is well under way for a year-long programme of public events, from city-wide challenges to educational activities. Look out for more details soon.



# A living legacy

Cover feature

**Humans are hard-wired to care about what we leave behind. We want our lives, and our experiences, to benefit future generations. But what does it mean to leave a legacy – as an individual, or as a university?**

By Catherine Lee

**If asked to define the term 'legacy', most of us instinctively start with the common dictionary definition: a gift of money or property bequeathed by will. But beyond the material, all of us will leave a far more subtle impression on our successors: the memory of who we are, and of what matters to us.**

Our true legacy is the sum of everything we hand on to others: moments shared with family and friends, our professional accomplishments and, most of all, the things we do to better the world around us. Every new experience and achievement has the potential to influence and shape our legacy, as we decide how we want to live in the present, and build for the future.

The idea of an ever-changing, real-time legacy is particularly apt for institutions, like universities, that have an indefinite lifespan. For more than 1,000 years, the purpose of universities has remained unchanged, despite having to operate in a variety of political, economic and social climates.

Humans possess an innate intellectual curiosity that seizes on opportunities to enquire, to challenge and to create; and learning and discovery are as critical to our societies, our cultures and our economies as they've ever been.

But how can we begin to evaluate the impact of a university – on individuals, on society or on places? Here, staff and alumni share their thoughts.

'LEARNING AND DISCOVERY ARE CRITICAL TO OUR SOCIETIES, CULTURES AND ECONOMIES'



**Professor Sir Eric Thomas (Hon LLD 2004) Vice-Chancellor**

The 21st century will be known for the rise and rise of the virtual world – where learning, working and socialising can all take place in front of a computer screen. But, of course, the virtual world has not yet supplanted the physical world. If anything, it has reinforced the vital importance of personal interaction and of place.

Across the globe, universities continue to expand their physical estates, while online-only higher education courses have not grown at anything like the rate predicted. Even the trend for creating 'satellite campuses' overseas seems to be slowing markedly now.

We all crave, and delight in, personal interaction; and we all become fond of places. For Bristol alumni, the University campus and its buildings – along with the glorious city itself – are inextricably bound up with their memories of learning and discovery as students.

Few of us can picture Bristol without the many glorious University buildings bequeathed by the Wills family, whose generosity and vision continue to shape our institution today. The Wills Memorial Building (commissioned to last at least 500 years), the gift of the historic Royal Fort House, the creation of the HH Wills Physics Laboratory, Wills Hall and Manor Hall – more than 100 years later, thousands of students continue to enjoy these inspiring spaces. The Wills family's legacy is powerful indeed.

Our challenge today is to ensure all our historic buildings remain fit for the future, and that new study spaces preserve and enhance the character of our University. We've invested hundreds of millions of pounds in capital projects in recent decades, and will continue to do so to ensure that the physical legacy of Bristol University endures.



Main image © Image courtesy of Bristol Library, Special Collections (DM485) // Illustrations © Ciara Phelan



**Bill Ray (BSc 1975) Chairman of Convocation and the Alumni Association**

As alumni, we're living examples of the impact our University has on people, on business, and on society. Many of the qualities we learn and develop as students – enquiry, challenge, leadership, risk-taking – are exactly the traits that help organisations, communities and cultures thrive and adapt over time.

University offers us a chance to explore, and ask questions of, the world around us, unrestricted by many of the responsibilities that come later in life. As such, our student years are often some of our most formative, and continue to inform both our professional and personal lives long after we graduate.

For more than 100 years, Bristol alumni have been leaders, inventors, and innovators. So many names spring to mind – among them, Jasmine Whitbread (BA 1986, Hon LLD 2014), CEO of Save the Children International; Dr Joseph Muscat (PhD 2007), Prime Minister of Malta; Anne McClain (MSc 2005), NASA astronaut.

The currency of our degrees has held fast too: today's graduates are in strong demand. Leading employers continue to look to our University for bright new talent, and ideas conceived on campus have taken shape as some of the UK's most successful start-ups in recent years. Steph Croft-Simon (BSc 2010) set up Nom Foods after spotting a gap in the market for organic, nutritious snacks; popular fashion app, SnapFashion, is the brainchild of Jenny Griffiths (MEng 2009).

The sheer variety of ways in which alumni are making an ideological, and economic, impact around the world is astounding. From the concert hall to the trading floor, we all play a part in representing our University to the wider world, and perpetuating the distinctive qualities inherent to our Bristol education.

**Professor Alexander Bird Professor of Philosophy**

We should all be conscious of and grateful for the generosity of our predecessors. They've enabled us to work and study in such a congenial environment, and one conducive to lively intellectual activity. Yet we must also be aware that it is this intellectual activity that is at the core of the character of our University. Both staff and students inherit a legacy of thought – a spiritual environment in addition to the physical one.

'STUDENTS AND STAFF ALL CONTRIBUTE TO THE ENDURING CHARACTER OF OUR INSTITUTION'

By inheriting this legacy, we have an opportunity, and a duty, to nurture and add to it. Our University is a product of evolution – of the input of many different people, whether financial, spiritual, or intellectual. Students and staff all contribute to the enduring character of our institution.

As academics, we hope to leave a legacy through both our research and our teaching. We want to gain recognition for our work in a particular field and, collectively, shape and build the reputation of the departments we work in. But we also want to pass on our enthusiasm for our subjects to our students, so that they in turn will make an impact on others.



**Professor Jeremy O'Brien Professor of Physics and Electrical and Electronic Engineering, Director of the Centre for Quantum Photonics and Royal Academy of Engineering Chair in Emerging Technologies**

Bristol has been making its mark on science for more than 100 years. The University is recognised worldwide as the birthplace of significant breakthroughs in quantum mechanics, and can count Nobel Laureates Paul Dirac (BSc 1923), Nevill Mott and Cecil F Powell among its former staff and alumni. In the 1930s, the School of Physics also offered refuge to scientists fleeing from Nazi occupation. Hans Bethe, Max Delbrück and Gerhard Herzberg all went on to receive Nobel recognition in physics, medicine and chemistry respectively.

That legacy is crucial in inspiring young talented minds to come to Bristol to learn, research and ultimately create the technologies that will shape the future. When I arrived at Bristol as a Research Fellow in 2006, I was fortunate to work with two living legacies, Emeritus Professor Bob Evans FRS (PhD 1970) and Professor John Rarity, one of the founding fathers of quantum information. Their support and guidance helped me to build the Centre for Quantum Photonics (CQP) into the world-leading research group it is today. The Engineering and Physical Sciences Research Council, through the Recognising Inspirational Scientists and Engineers programme has allowed me to pass on this legacy to the next generation; my rising star is former CQP PhD student, Peter Shadbolt.

We're developing secure communication networks for consumers, corporations and government; precision sensors for security, biomedical technology and environmental monitoring; and quantum computers that could eventually outperform even the most powerful computers we have today. The impact of these systems will be profound and far-reaching, and will revolutionise the way we use technology. That will be the legacy of our generation. ●

**As Artistic Director of the Royal Shakespeare Company, Greg Doran still seeks the opinions and advice of his former drama tutor, Professor Martin White. Here, they reflect on their creative collaborations, past and present.**



# Alumni stories Centre stage

Greg designed the set for Martin's production of Steve Gooch's *Female Transport* in the Vandyke Theatre



Greg Doran © Ellie Kurtz/RSC

## Professor Martin White Emeritus Professor of Theatre

**Greg was a student who stood out not only for his academic ability, but for his artistic ability too. He could design, he could act and he could direct. He had incredible entrepreneurial spirit, and even ran his own theatre company while he was at Bristol. I was honoured to give the oration for Greg's honorary degree in 2011.**

I first got to know Greg properly in his second year. He designed the set for my production of Steve Gooch's *Female Transport*, and acted in two productions I took to the Edinburgh Festival later that year – the anonymous Elizabethan domestic tragedy, *Arden of Faversham*, and a new, full-length adaptation of Tom Stoppard's *Albert's Bridge*, in which he played the lead role.

For many years, I went to see Greg perform in various productions. Then, when he became Chief Associate at the Royal Shakespeare Company (RSC) in 2002, we started working more closely together. On a number of occasions, he's invited me to act as a season advisor for the RSC and spend time with the company.

I always enjoy watching Greg in rehearsal, and am often struck by how interested he is in what everyone has to say. He's very easy with people, and doesn't ever stand on ceremony. He has what all good directors have – certainty and confidence in what he wants to do, but also a great openness to what actors bring to rehearsal. He also has a great way of making people feel relaxed, while still ensuring everyone is really focused on the work. His knowledge of the plays of Shakespeare and his contemporaries is formidable, and his love of the plays is palpable. That's a very potent combination.

### 'I ALWAYS ENJOY WATCHING GREG IN REHEARSAL'

When he directed Ben Jonson's *Sejanus*, few of the cast were familiar with the story of Ancient Rome. Greg started rehearsals by drawing on examples from the BBC TV series, *I, Claudius*. It was a brilliant way of bringing the story to life, and giving the cast a sense of shape and narrative, before starting work on the text.

I was thrilled when he was appointed as the RSC's Artistic Director. As well as being a brilliant director, Greg's extremely well-read, and intellectually curious. He's always thinking about how to get the best knowledge into the RSC, and looking to find something new – a play that's not been done before, or a season of plays with an original theme.

Greg and I talk often. I certainly tend to know what Greg's doing. But I don't always know what he's going to do...

## Greg Doran (BA 1980, Hon DLitt 2011)

**As a country boy from Lancashire, I really fell for Bristol. I enjoyed my introduction to the Drama Department and the treasures of the Theatre Collection, and learnt from brilliant practitioners, like Martin, the importance of theatre as a craft.**

Perhaps my favourite experience was designing a scaffolding structure that used the whole of the Vandyke Theatre (now the Wickham Theatre) for Martin's production of *Female Transport*, set aboard a prison ship bound for Botany Bay. I still have the furious little sketches I made on a research trip to the National Maritime Museum. The trip taught me just how enthralling the process of research could be, and how theatre could transport me into so many different worlds.

### 'MARTIN IS VERY GOOD AT KEEPING MY FEET ON THE GROUND'

I'm delighted to have not only kept in touch with Martin, but to have been able to ask his advice on many occasions. He's deeply knowledgeable about the Jacobethan period. I've been a champion of this repertoire at the RSC, and Martin's often suggested plays I should look at.

Last year, I asked Martin to take part in a scholars' pitch with the Shakespeare Institute and the RSC. We asked four academics to suggest four plays that are rarely (if ever) performed, but which deserve to be so. I drew the line at Middleton's *Hengist King of Kent*, but Martin's suggestion of John Ford's *Love's Sacrifice* led us to programme the play for 2015. You'll have to come and see if it's a good suggestion.

Over the years, Martin has tried out some of these plays in the relatively protected context of the Wickham Theatre. I know Matthew Warchus (BA 1988, Hon DLitt 2011) cut his teeth in Jonson's *Sejanus*. Jonathan Munby (BA 1998) and Jo Davies (BA 1993) also started their careers in the department; both have gone on to direct productions at the RSC, and still keep in touch with Martin too.

Martin has a wonderfully crisp, playful wit. He is very good at keeping my feet on the ground, and preventing me from taking life, and work, too seriously. I put on plays; perhaps they're called 'plays' for a reason.

There is a common prejudice that if old plays haven't been done for a while (400 years, say) there must be a good reason why. In fact, often as not, it's because nobody has dared risk doing them. Martin taught me to challenge that prejudice and to trust my own theatrical instinct. And, often as not, he's right. ●



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code ALUMNI15  
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The University of Bristol Students' Union has a fantastic range of clothing, accessories and gifts online. With VAT-free offers on international purchases, you can wear your Bristol colours with pride wherever you are in the world. View the collection now at [ubushop.co.uk](http://ubushop.co.uk)

Feature

**Lord Boateng**, former British High Commissioner to the Republic of South Africa, met **Laurence Barron**, CEO and Chairman of Airbus Group China, on the first day of Freshers' Week, 1970. More than 40 years later, they share the secrets of their enduring friendship.



Alumni stories

# High-flyers

**Lord Paul Boateng (LLB 1973, Hon LLD 2007)**

**(PB)** Laurie and I met in the Wills Memorial Building in that frantic rush to meet new people. Often you spend the rest of your student years avoiding the people you're flung together with in Freshers' Week, but Laurie and I have stayed friends ever since.

**Laurence Barron (LLB 1973)**

**(LB)** Only Paul calls me Laurie, it's quite special to our friendship.

**PB** We were always nervous at exam time, which we countered by bouts of intense study.

**LB** Over Easter, Paul would come to stay at my home near Dover. We went to the library every day, and were spoilt by my mum.

**PB** There were also lengthy periods of concerted indolence...

**LB** ...speak for yourself...

**PB** ...music, theatre, debating, and the wholesale consumption of tea and tea cakes.

**PB** We had, and still have, a Monty Python-style sense of humour.

**LB** Not to mention The Goons. I still have your LP of *Bridge on the River Wye* somewhere...

**PB** The secret of our friendship is that we've never lived in the same house – nor, since we left Bristol, in the same country. We would have driven each other mad.

**LB** You were messy. I was neat, tidy and organised. My flatmates and I cooked real food every night and a roast on Sunday (emulating our mums as best we could). Our girlfriends called us 'the cooks'.

**PB** We had lots of fun. We even managed to enjoy Student Council. We were elected without the backing of any political grouping,

on a joint 'cut the crap' ticket.

**LB** Paul was my best man when I got married, and has visited us in Spain and Beijing. I've visited Paul and his wife, Janet, twice in South Africa. In Cape Town, a waiter assumed Janet and I were an item and Paul was our tour guide.

**PB** Janet is glamorous and black. In Cape Town, tour guides tend to be mixed race. The waiter put two and two together, and got five.

**LB** Janet and I laughed until we cried. Paul was not amused...

**PB** I had the last laugh. Janet and I got into the Daimler; Laurie got into a Toyota.

**PB** We don't give each other advice. I don't know anything about financing aircraft. Laurie's forgotten most of his law and I'm not sure he's ever voted in England...

**LB** ...or in France, even less so in China.

Whenever we get together, it's just like old times. We're now in our 60s but revert to Goon-like humour and laughing at each other as if we were still 'green around the gills' first-year students.

**PB:** He gives the impression of effortless success...

**LB** ...have you been drinking?

**PB** He is, in fact, a consummate, international businessman and a very hard and focused worker. We began as *The Likely Lads*; now it's more *One Foot in the Grave*. But it's a friendship I value hugely...

**LB** ...as do I, you loveable old rogue! Bristol was the best time of our lives. We had none of the responsibilities later life brings. We only had to get our degrees which, somehow, we managed while also having a lot of fun together on the way! ●





# The Brunel connection

Feature

To mark the 150th anniversary of Brunel's Clifton Suspension Bridge in November, *Nonesuch* pays tribute to the designer of one of Bristol's most famous landmarks.

Feature

By Hilary Brown

**The Clifton Suspension Bridge is as synonymous with Bristol as the Wills Memorial Building is with the University; it's hard to think of one without the other. Little wonder, then, that the city has claimed Isambard Kingdom Brunel as one of its own.**

Although the pioneering Victorian engineer and industrialist never lived in Bristol, he began his extraordinary career in the city and left a lasting physical mark on its landscape – not only with the bridge, but also with the *ss Great Britain* (the first iron steamer to cross the Atlantic and, at the time, in 1843, the largest ship ever built), Temple Meads Station (Brunel was chief engineer on the Great Western Railway line between Bristol and London), and improvements to the docks.

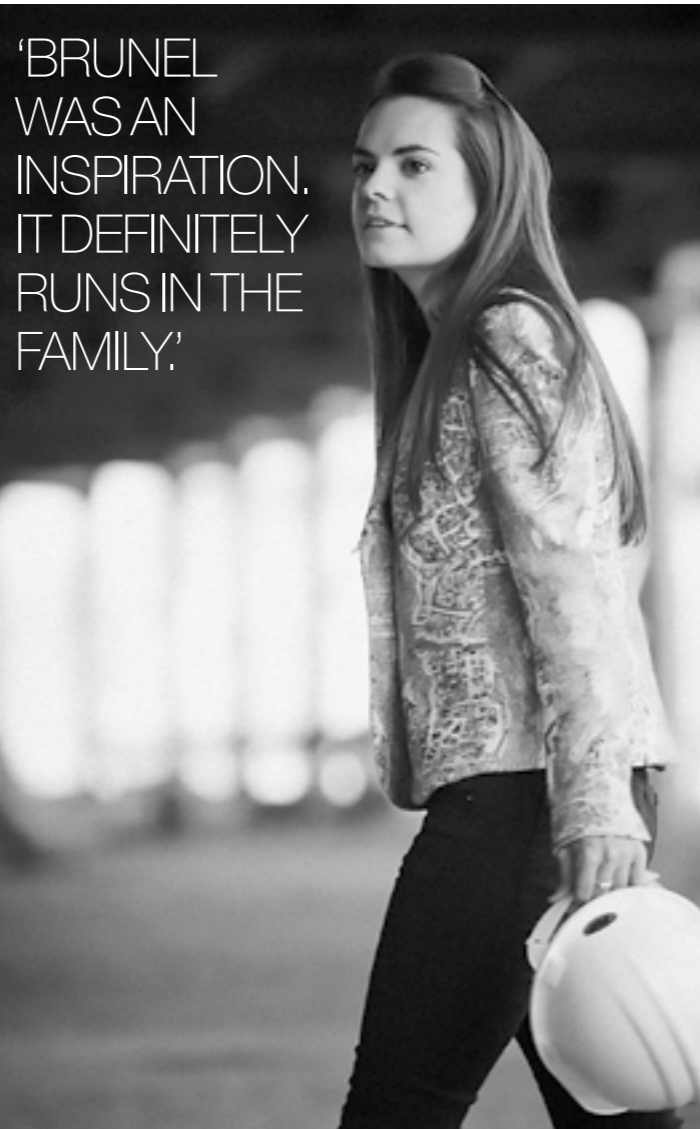
The National Brunel Archive is housed in the Brunel Institute at the Great Western Dockyard, site of the *ss Great Britain*, and comprises the University's Brunel Collection, along with maritime material owned by the *ss Great Britain* Trust and the papers of the Clifton Suspension Bridge Trust. Widely consulted by scholars from around the world, it provides unparalleled insights into Britain's engineering heritage.

The foundations of the Brunel Collection, a treasury of original diaries, letters, notebooks and sketches, was left to the University by Lady Celia Noble, the granddaughter of Isambard Kingdom Brunel, in 1950. It has been added to since with the support of donors, grant givers and other charitable trusts, and is catalogued by the University of Bristol Library Special Collections. The archive catalogue can be found at <http://oac.lib.bris.ac.uk/DServe>.

[sbgreatbritain.org/brunel-institute](http://sbgreatbritain.org/brunel-institute)



'BRUNEL WAS AN INSPIRATION. IT DEFINITELY RUNS IN THE FAMILY.'



**Family footsteps**

Brunel's engineering genius survives in his descendant Morwenna Wilson (MEng 2005), above, who has been charged with leading a team of architects and engineers renovating the area around King's Cross Station. The task is to bring back to life the old Victorian structures around the station that were built by Brunel's contemporaries, George Turnbull and Lewis Cubitt, in 1851-52.

In an interview with *The Times*, Wilson said of her ancestor: 'He was an inspiration. It definitely runs in the family. My grandfather was also an engineer.'

Since graduating from Bristol, Wilson's career has gone from strength to strength. In 2008, while working at Arup, she won the H&V News Graduate of the Year Award organised by the Chartered Institution of Building Services Engineers/ASHRAE Group, with her presentation on delivering and maintaining sustainable buildings. She now works for property developer Argent, a joint partner with London & Continental Railways in the King's Cross Central Limited Partnership.

Clifton Suspension Bridge opening ceremony and construction images © Clifton Suspension Bridge Archive / Morwenna Wilson © Elizabeth Gibson



**Running the chains**

The Clifton Suspension Bridge looms large in David Carr's (MB ChB 1961) memories of his student days at Bristol. You wouldn't get away with it now, but he and fellow student Brian Hobby (BDS 1961), who died in 1987, made a habit of racing each other over the chains from Burwalls, then a hall of residence on the western side of the bridge.

Starting at pavement level, one on the far side and one on the near side, they would run up the chain into the first tower, turn around and come out on the gorge section feet first, until the angle of the chain was shallow enough to stand up on. Then it was a case of 'running like crazy' down the length of chain, and repeating the exercise via the second tower, to emerge past the tollkeeper's booth and so to the pub.

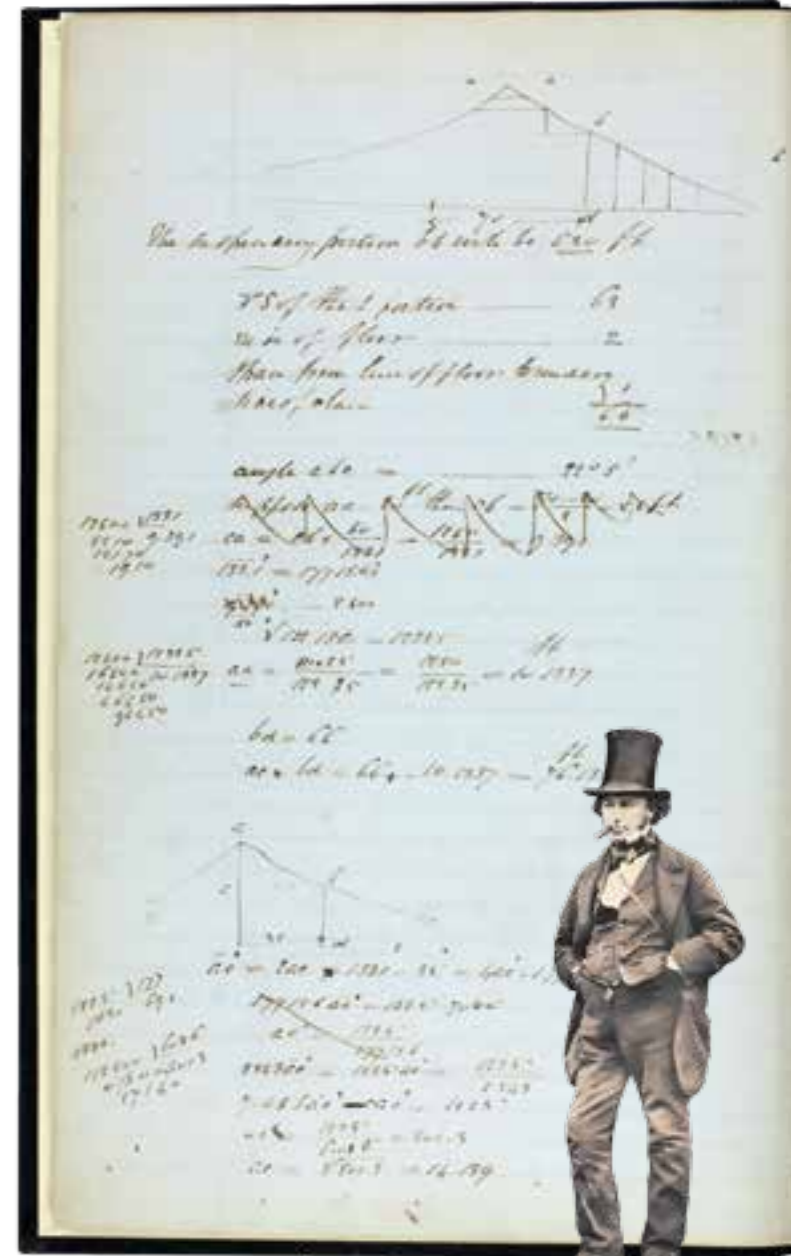
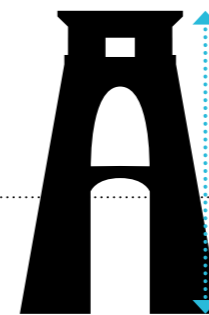
Dr Carr (pictured above in his student days) claims to have won the race on most occasions during the three years the pair lived in Burwalls (although we only have his word for it). 'We only ever ran the chains in the evening,' he adds, 'never on the way to lectures and never, ever on the way back from the pub. We're not daft, you know.'

**In numbers**

**81**  
wrought-iron rods  
suspend the bridge deck

**26m**  
height of towers

**11,000+**  
motor vehicles cross  
the bridge every day



**The bridge thus far**

The Clifton Suspension Bridge was the 24-year-old Brunel's first major commission, secured after he won a competition to design a new crossing over the River Avon. Construction began in 1831 but the project was dogged with political and financial difficulties and by 1843, with only the towers completed, the project was abandoned.

Brunel died aged only 53 years in 1859 but the bridge was completed as his memorial and finally opened in 1864. Designed for light horse-drawn traffic, it still meets the demands of 21st-century commuter traffic. ●

**Opening spread** Clifton Suspension Bridge opening ceremony **Opposite page** The bridge during construction **Above** Clifton Suspension Bridge Calculation Book 1, 'Diagrams and calculations relating to the CSB chains and suspension rods. n.d.', DM162/8/2/1/folio 5, by courtesy of the Brunel Institute: a collaboration of the SS Great Britain Trust and the University of Bristol // Isambard Kingdom Brunel

English students **John-Paul Flintoff** and **Harriet Green** met at the end of their second year. They married eight years later, have a ten-year-old daughter, and are now writing a book together.



Alumni stories

# Date with destiny

## John-Paul Flintoff (BA 1990)

**I always knew I wanted to study English, and immediately loved Bristol when I visited. The city had a unique charm, and the professor who interviewed me seemed to be wearing a tea cosy as a hat.**

I felt incredibly blessed to be a student at Bristol. I'd been to a rough school, where you kept your back to the wall and looked out for missiles at all times. Suddenly, I was surrounded by people who were actually interested in studying.

Harriet was on my course but, mysteriously, didn't seem to notice me for two years. We only met because Jane Lunnon (née Cullen) (BA 1990) and Fiona Jantet (née Henderson) (BA 1990) invited me to Harriet's surprise 21st birthday party.

Jane and Fiona were perfectly open about the fact that they really wanted John Yates (BA 1990). He wasn't available. I expect he's still kicking himself.

After Harriet and I graduated, we both decided to study for an MA. Harriet specialised in medieval literature; I studied Shakespeare and his influence. During the year, I expressed my wish to become an academic to one of my tutors, Moira Megaw. She told me with characteristic bluntness that I was temperamentally unsuited to it.

At the time, I felt bruised, but I've come to see she was right. Instead, I left university determined to be a poet. Believe it or not, I was quite shocked to find it impossible to make a living that way.

Happily, studying English had given me confidence in my writing skills, and I took up journalism instead. By now, Harriet had already got a place on the country's leading journalism course. So I taught myself shorthand, and borrowed her course notes.

I started writing for trade magazines, and worked for a time as an investigative reporter. Then I wrote a memoir, *Comp: A Survivor's Tale*, about my hair-raising education in a London state school. Soon after, *The Financial Times* hired me as a feature writer.

My favourite assignments involved immersing myself in real-world jobs and writing about the experience. I was a mini-cab driver, and an undertaker in a 'green' funeral business, and I performed in pantomime with Lionel Blair and Linda

Lusardi. I also cleaned the windows on the tallest building in Europe.

In 2010, I was worried about climate change, and wrote a book, *Sew Your Own*, about trying to save the planet by making my own clothes (yes, really). I then joined the faculty of The School of Life, and wrote a more general guide about making change, *How to Change the World*. It's been published in 14 languages, and I gave a follow-up talk at TEDxAthens.

My greatest achievement by far has been to marry Harriet. We'd been together for a long time when our friends started getting married. We went out to dinner and decided to do the same. I drew a cartoon conveying this happy news and faxed it to our parents. We married in December, at a tea dance in a London hotel, less than a month before my 30th birthday.

I'm currently working on a historical novel, *What If The Queen Should Die?* Years ago, a friend asked me which king or queen Shakespeare would have written about if he'd lived to hear their life story. I suggested Queen Anne: she betrayed her father, who cursed her, and she lost 17 children.

Together, Harriet and I are also writing a book about family, that's due to be published next year. It's a creative workbook to help people better understand who they are, where they come from, and what they will leave behind.

Harriet and I have always worked closely together, and often ask each other to read things we've written. That doesn't mean it's always easy: Harriet can be brutally honest. But my toughest critic is – and has always been – my greatest supporter too.

## Harriet Green (BA 1990)

**My brother was at boarding school in Bristol, so I spent a lot of time there throughout my childhood, and always loved the city.**

I was originally meant to be reading Russian. I arrived in 1986, spent four weeks struggling with Chekhov and Dostoevsky in the original and knew I was in trouble. I looked with envy at friends studying English. What madness had led me to choose Russian?

I assumed I'd be able to switch courses fairly easily. But English at Bristol was a fiendishly difficult course to get onto.

I had to leave and reapply the following year – a big gamble. My parents were distinctly unimpressed and packed me off to London the next day to get a job. Thankfully, it paid off.

I vividly remember my interview in the Department of English on Woodland Road with Myra Stokes and Tom Mason, both tutors I came to admire very much. If they hadn't let me in, I've no idea what I would have done. I'd certainly never have met John-Paul (JP).

I adored the course but I wasn't as conscientious as I should have been, particularly in the first year when we were made to learn Anglo-Saxon. It was as painful as studying Russian all over again. But I made great and lasting friends in the department. I also smoked too much and stole many cigarettes from John-Jo Moody (BA 1990).

I vaguely remember JP from the first year. I'm ashamed to admit I thought he looked a bit gormless. Our first date was at Pizza Provencale. We split the bill, and we still have the wine bottle.

I always wanted to be a journalist and applied for a journalism postgraduate programme in my final year. I got in; JP didn't. I graduated during an awful recession and took the first job I was offered, on *Media Week*, a trade magazine for the advertising industry.

I moved to *Campaign* just as the economy was revving up again. *Campaign* was nicknamed 'Champagne' for a very good reason; I ate at The Ivy most weeks. I then worked briefly at the *Daily Telegraph* before joining *Harpers and Queen* as Deputy Editor. I was part of the team that reinvented the magazine as a global fashion brand, *Harper's Bazaar*.

Now, I'm Editor of the Family section of *The Guardian*. Family is a standalone section of the Saturday paper that has a passionate following among readers.

JP and I have spent more than half our lives together, so working together isn't difficult. He's my best friend and has been since the moment we got together in June 1989. He's also extremely good at washing up. ●

Left John-Paul and Harriet at their graduation dinner at Thornbury Castle, 1990

To read more stories of couples who met while studying at Bristol, or share your own tales of romance, please visit [bristol.ac.uk/nonesuch](http://bristol.ac.uk/nonesuch).



# Generation gains

Feature

**As many of the babies born into the University's Children of the 90s project branch out into adulthood, the future looks rosy for one of the largest long-term health population studies in the world. And with almost 26,000 participants, it's still growing.**

By Hilary Brown

**H**ealth, development and behaviour differ markedly between individuals, but how much of this variation is down to our genes, and how much is influenced by our environment? Teasing out the complex relationships between genes and environmental factors, and how they interact over time to affect health and development, is extremely difficult and requires huge amounts of data, collected over many years, for researchers to study.

Enter the Children of the 90s project, also known as the Avon Longitudinal Study of Parents and Children (ALSPAC).

## First steps

Jean Golding OBE (Hon LLD 2013), Emeritus Professor of Paediatric and Perinatal Epidemiology, founded ALSPAC in 1990. It was not the first long-term population study in the UK, but Golding believed that existing studies were too narrowly defined by participants' birth dates, and that many factors influencing health and development were linked to mothers' behaviour and lifestyle during pregnancy, if not earlier. ALSPAC broke new ground by recruiting pregnant women so that researchers could gather detailed information on the babies' parents and grandparents that might affect the children's lives even before they were born.

## Great leap forward

Another distinctive feature of the study was the breadth of the data collected. Genetics was in its infancy in the early '90s (Golding recalls funders' eyes 'glazing over' at the very mention of the word), but, encouraged by leading clinical geneticist Professor Marcus Pembrey, the ALSPAC team was determined to give the study a genetic component.

'Received wisdom among scientists at the time was that research should focus on a specific outcome, say, asthma, dyslexia or depression,' says Golding. 'Our approach was more holistic; we wanted to look at how family background, behaviours and genes work together to affect children's overall development, and whether – and why – they remain healthy or become ill.'

And so ALSPAC became the first longitudinal study to collect biological samples from participants, including urine, hair, blood and DNA. This data was to be analysed alongside detailed records of characteristics such as diet, lifestyle, socioeconomic status and emotional health.

## The long haul

Golding's team was committed to maintaining the project's momentum by continually collecting information. And it succeeded. More than 14,000 pregnant women in Bristol and the surrounding area signed up to the project in 1991 and 1992, many of whom still participate, along with 8,000 children, 3,000 dads, 200 'children of the children' and 550 siblings.

Researchers are now in the process of recruiting the parents of the original mothers and fathers. If enough grandparents participate, ALSPAC will be in the unique position of being able to provide genetic information for up to four generations of the same family. And as its participants are its most valuable asset, ALSPAC is also involving some of its enthusiastic contributors in decisions about how the study might evolve in the future.

## Future investment

Today ALSPAC, headed by Professor George Davey Smith, a dedicated team member for the past ten years, and newcomer Professor Paul Burton, is in rude health. Its unrivalled bank of data and repository of biosamples have made it a world-leading research platform for scientists around the world.

The project is maturing in a world characterised by rapid advances in biotechnology. Researchers using the study have a key focus on the emerging field of epigenetics – the interaction between genes and the environment during development, whereby external factors turn genes on or off. Scientists are beginning to use epigenetic information to predict disease and target treatment, as well as develop new medicines, with some of the most exciting work in this area being carried out at the University's

## Memorable moments



Children of the 90s founder Professor Jean Golding picks three of ALSPAC's most life-changing research findings.

Eating oily fish during pregnancy improves children's eyesight and IQ. Furthermore, fish accounts for only seven per cent of mercury levels in the human body, much lower than previously thought. This overturns the US Food and Drug Administration's advice to pregnant women to limit their fish intake because of the mercury scare.

Children whose mothers use skin creams containing peanut oil on their baby's skin are more likely to develop a peanut allergy, particularly if they already suffer from eczema. All skin creams now list their ingredients clearly.

Laying babies to sleep on their backs has no harmful effects. This reassured governments that changing the position a baby was put to sleep in would be likely to reduce the risk of cot death without increasing other problems. The resulting Back to Sleep campaigns have prevented tens of thousands of deaths in the UK, and hundreds of thousands worldwide.

Below Professor Jean Golding



Feature

MRC Integrative Epidemiology Unit, also directed by Davey Smith.

ALSPAC is also benefitting from increasingly sophisticated use of data. Cutting-edge information systems and anonymisation now enable researchers to align ALSPAC data with information from primary care records and to analyse data alongside that of other cohort studies.

Burton feels privileged to be involved in a project widely seen as an exemplar of the best in contemporary health and social science, thanks to the work of Golding, Davey Smith and, of course, the participants. He has arrived in the year that has seen the

publication of the 1,000th academic paper based on ALSPAC data – ‘by any standards a prodigious rate of return on the funding invested in it,’ he says.

He’s not the only one to think so: the project recently received almost £8 million from the Medical Research Council and the Wellcome Trust to continue its work until March 2019. As Golding attests: ‘No other study has anything like the same amount of detail and potential to answer questions, and it will get more and more valuable as time goes on.’ ALSPAC’s ‘bank of life’ is set to pay dividends for generations to come.

[bristol.ac.uk/alspac](http://bristol.ac.uk/alspac)

### Living history

Bristol student **Stephen Hardman** (BSc 2014, Medicine 2014-) and alumna **Kim Mather** (LLB 2013), two of the original Children of the 90s participants, reflect on what it means to be part of the study.



**Steve**

From the age of about nine I was curious about why I was going to the clinic for all these tests. Some people struggle with the fact that you don't see immediate results with this kind of study but

studying medicine helps put it into context. It's fascinating to be part of a scientific process – I am the data and I can see how the data is used to advance our knowledge.

The work on epigenetics is particularly interesting – the idea that the way our DNA is expressed could predispose us to diseases later in life, depending on whether, say, our mother was a smoker when we were still in the womb. ALSPAC has helped lay the foundations for research in this field.

I intend to stick with the study. My brothers are joining, as siblings are now being included. The sheer volume of the data means that researchers can eliminate a significant amount of bias that might invalidate results.

I already have a degree in Biochemistry and I'm interested in developing treatments for hypoxic-ischaemic brain injuries, where the brain is deprived of oxygen, for example in strokes. Whatever I do, I know what it's like to be on the receiving end of a blood test or to lie in a brain scanner for several hours, though I'm lucky enough not to have been there because of illness. I hope this experience will help make me a better doctor.



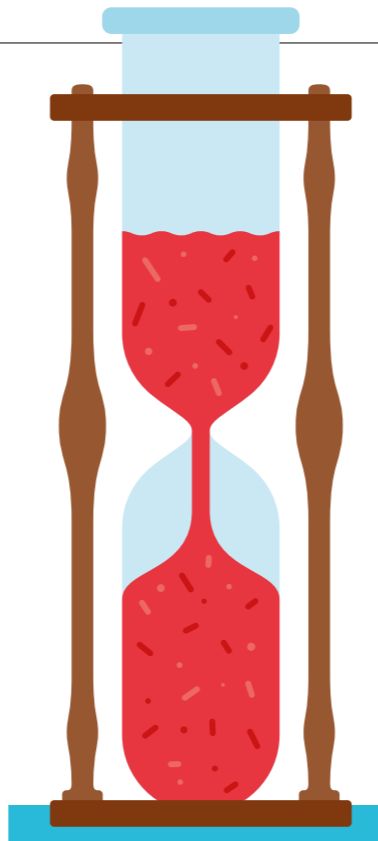
**Kim**

I first became aware of being in the study when I caught my mum taking a tooth that I'd hidden for the tooth fairy. She confessed to collecting my milk teeth for the Children of the 90s researchers.

I used to look forward to going into the clinic. The tests were fun – and I got the day off school! There were quite a few other participants in my year and it felt like we were part of something special. Our other friends thought we were cool.

It's a bit of a family affair now. My step-dad and sister are taking part, and my daughter Annie, who's five, is part of the COCO90s group – the Children of the Children of the 90s. It's intriguing to see her doing all these tests that I did at that age. It's given me a better understanding of child development. It's amazing that, for a small amount of effort by individual participants, so much has been discovered. It's great that there are simple things you can do to have a healthier baby, like eating oily fish when you're pregnant.

Taking part in the study has increased my sense of belonging to the community. Bristol has always had what I wanted – the right degree at the right university, in the right city. I've just got a teaching qualification and have started work in a local school, so it looks like I'm here to stay. ●



### Adding it all up

So far, ALSPAC has asked

**500,000**

questions of its participants,

collected

**1.4 million**

biological samples and

**21,000+**

DNA samples

and collaborated with

**1,000+**

researchers around the world

Steve Hardman and Kim Mather © University of Bristol, Bhagesh Sachania

Feature

When Maths graduate **David Jessup** volunteered to help with student enterprise, he hoped to share his professional experience and learn a few new skills. That was before he met final-year Engineering student **Oliver Spragg**. Now, David and Oliver are starting a company together.



# Alumni stories Sum of two parts

#### David Jessup (BSc 1975)

At the age of 58, I wanted something totally different – a ‘next career’ – and to give something back to Bristol. My daughter, Kathryn (BSc 2013), introduced me to the Research and Enterprise Development (RED) division, and I started mentoring several undergraduate businesses.

Over a coffee in The Hawthorns, Oliver showed me an early prototype of one of his inventions. We started spending more time together, kicking ideas about and developing material. One day, we looked at each other, and realised we were co-founding a company.

We've never got bogged down in defining my role as mentor. What actually matters is whether we get on, whether our conversations move things along, and whether each of us is making the other's business life more interesting.

Bristol gave me the mindset that you're never too old to keep learning. I've certainly learnt a lot from Oliver – that it's important to stay open-minded; that there's always a workaround; to have the courage to just talk to people; and to stick to your vision. If it feels right, it probably is right.

Only the best start-ups survive, and luck always plays a role. But, whatever happens, as I tell my wife Edith (née Monfries) (BA 1984), and my children, we'll always count Oliver as a great friend. I know from my career that when you fight together, and compete together, on a live project, you form bonds that are hard to break.

#### Oliver Spragg (BEng 2013, MEng 2013-)

I became inadvertently immersed in the enterprise ‘scene’ at Bristol when I met Shaun Miller (BSc 2012). Shaun and I worked together on an idea to help golfers accurately record their swing and get feedback on how to improve their game. David's a golfer, so our idea captured his imagination.

When the golf venture came to a close, I shared another idea with David – the technology to help make paying for goods with a smartphone easier for both consumers and businesses. After an epic chat, we realised we had another project to work on together.

David's role soon became far more than that of mentor, and we're currently both focused full-time on building and growing the company. We have a huge workload, and problems to solve at every stage, but there's very little as exciting or heart-wrenching as starting a business.

Since the beginning, I've been in awe of David's ability to break down a complex idea, situation or project, and clear everyone's thinking. He's also taught me to always consider the end goal. That advice has guided many of my business and personal decisions since, and has made a noticeable difference to the way I handle both opportunities and problems.

Starting a business is incredibly risky – there are very few constants. But, in David, I believe I've found a friend who will be a constant, through the good times and the bad. ●

Above David as a student

If you have entrepreneurial experience and would like to explore ways you might be able to help current students, please contact Rhys Pearce, Relationship Development Officer in the RED Education Team, at [rhys.pearce@bristol.ac.uk](mailto:rhys.pearce@bristol.ac.uk).

The dust has barely settled on the major conflicts of the last one hundred years – in some cases, it's still swirling fiercely. In the first of two features on the legacy of the world wars, we focus on a Bristol researcher contributing to a more complete picture of the First World War with a ten-year archaeological study of a region on one of its less familiar fronts: the Middle East.

By Nick Riddle

**In November 2012, Professor Nicholas Saunders and his archaeological team were working on the border between Jordan and Saudi Arabia. They were talking to the area's Sheikh – a crucial thing to do in order to negotiate the security situation there – who was showing them around.**

'He told us that half of his family were in Saudi but he couldn't visit them because of the boundaries,' says Saunders. 'Then he turned to us and said, half-joking, "You know, it's all your fault". We asked him what he meant, and he said, "Sykes-Picot".'

Two years later, the 1916 Sykes-Picot Agreement – in which Great Britain and France secretly arranged to divide parts of the Middle East into spheres of influence after the collapse of the Ottoman Empire – has emerged from the history books into the light of media scrutiny and debate, as the civil war in Syria and the rise of ISIS continue to destabilise the region.

The details of Sykes-Picot and its ramifications are far too involved to explain here – and that's precisely the point. The legacy of a conflict can be complex and far-reaching, and modern conflict is especially



Above A GARP metal detectorist at Batn Al-Ghul  
Opposite Ruins of an Ottoman-era Turkish fort in Southern Jordan near the route of the old Hejaz Railway

likely to leave behind a troublesome aftermath. Saunders is one of the pioneers of an interdisciplinary approach to the archaeology of modern conflict zones, an approach that brings new perspectives – anthropological, geographical, environmental, and heritage – to the battlefield, and traces the long-term effects of warfare.

#### According to GARP

When Saunders and his team first arrived in Jordan in 2006, it was to conduct a study of abandoned station buildings on the Hejaz Railway, a line built in the 1900s to facilitate the Hajj (the Muslim pilgrimage) from Damascus to Mecca, although the railway stopped in Medina. But within an hour of beginning, everything changed.

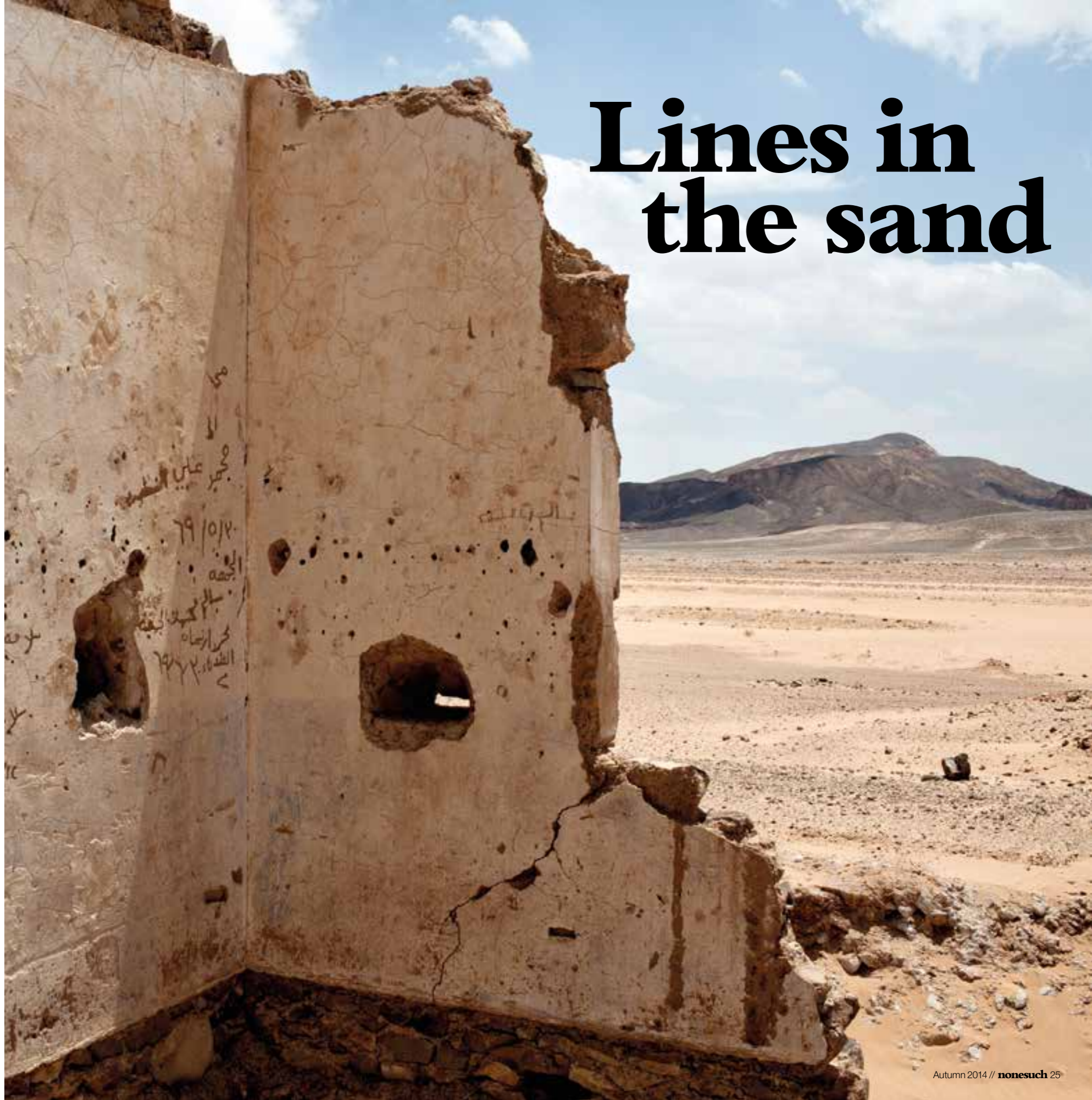
'We found an Ottoman army camp that nobody knew about except the local Bedouin,' says Saunders, 'and a whole militarised landscape flanking the railway, right down to the Saudi border.'

It quickly became evident that their project had to develop into something much more complex and novel: the archaeology of guerrilla warfare, as waged against the Ottoman Empire by the legendary TE Lawrence and his Bedouin comrades-in-arms. It was christened the Great Arab Revolt Project (GARP), a ten-year study with direct relevance to the situation in the region today.

'The Ottoman army transformed the landscape to counteract these unpredictable attacks on the railway,' says Saunders. 'Lawrence and the Arab irregulars would strike all over the place, then disappear back into the desert. It was the beginning of modern guerrilla warfare.'

Fittingly for a study of unconventional warfare, GARP's funding was organised outside the 'normal' channels, by using a volunteer model: people with relevant skills and experience paid a fee to take part every

# Lines in the sand



'WE CAPTURE AS MANY NUANCES AND LEGACIES AS POSSIBLE'



year, a portion of which funded the hiring of professionals to the team. 'That paid huge dividends,' says Saunders: 'we got to know local people, and they would show and tell us things, whereas if you come in with a big grant for a short time, they look at you as a cash cow.'

Their discoveries included Ottoman army camps and Arab rebel campsites, landing strips used by the British Royal Flying Corps, and trenchworks at various points along the route of the railway. Every year they found more, and each new discovery helped to fill in the picture of the Great Arab Revolt, and of the region's wider history, including the origins of the state of Jordan.

#### Digging deeper

The team's successes in Jordan illustrate the benefits of taking a multidisciplinary approach to modern conflict. 'You could arguably go to Waterloo, dig it all up, and say "Now we know all about what happened at Waterloo";' says Saunders. 'But in most First World War battle zones, there are years of accumulated debris to make sense of.'

Thanks to the advent of industrialised warfare, some of that debris is as deadly as it was a century ago. 'There are still roughly 400 million unexploded First World War artillery shells on what was the Western Front, and millions of unexploded hand grenades and volatile gas canisters, still going off now and then, sometimes killing people,' he says. 'To get some intellectual purchase on that, you have to understand the de-mining policy after the war, and the



arguments in France and Belgium between the government and the farmers who wanted their land back. That's why we try to capture as many pieces of information, nuances and legacies as possible.'

Saunders cites a particularly resonant example of this kind of legacy in his study of trees in Great War landscapes. In the town of Verdun, where a particularly nasty war of attrition between the Germans and the French involved heavy deployment of mustard gas, the resulting chemicals leached into the soil. 'Over the decades, this poison seeped into tree roots,' says Saunders. 'The trees were cut down and made into wine casks, then the wine became tainted and people who drank the wine become ill. Tracing that trajectory as a modern, unexpected legacy of the First World War requires much more than digging up a battlefield.'

#### On the horizon

GARP's ten-year span ends in 2016, but Saunders and his team will follow Foreign and Commonwealth Office advice about whether a return to Jordan is prudent. Meanwhile, he is planning a new project in the Isonzo Valley, an area of former Austria-Hungary that was the setting for at least a dozen battles in the First World War. 'It's a well-preserved landscape,' he explains, 'and a microcosm of the way that Europe transformed after 1918, with the dissolution of the Austro-Hungarian Empire and the eventual rise of the European Union. There's a lot to discover there.' ●

[jordan1914-18archaeology.org](http://jordan1914-18archaeology.org)

#### Lost and found

**John Winterburn, a Bristol PhD student and GARP's Landscape Archaeologist, researched the location of a camp used by TE Lawrence, described in his book *Seven Pillars of Wisdom* as 'behind the toothed hill'. When another researcher showed him a 1918 photograph (above) of several Rolls Royce armoured cars, it confirmed his theory about the camp's whereabouts.**

Winterburn and the GARP team found and excavated the site, which was littered with fragments of glass, pots and British rum jars, along with metal objects such as shell cases and spark plugs.

The discovery made headlines as 'Lawrence's Lost Camp', although Winterburn believes that it was probably only used for around 10 days.



**Above left** An intact Ottoman 'throwing bomb' beside a smaller bomb fragment  
**Above** Armoured Rolls Royces at Tooth Hill in 1918

Grenades © Roger Ward, GARP; Rum jars © Alison Baldry, GARP; Rolls Royces © John Winterburn (source: George Pascoe)

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Nick Schumacker (PhD 2013-) is developing a novel surgical technique that will help thousands of people affected by heart disease.




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# Alumni in memoriam

The University extends its sincere condolences to the friends and families of those listed below for whom we have received notification of death.

<b>Lady Isobel Wood</b> (née Stamp) (BA 1930, Hon MA 2009) died 2014, aged 105	<b>The Rev Dr Timothy Mark</b> (BA 1957, Cert Ed 1958, MLitt 1968, MEd 1971) died April 2014, aged 80
<b>Patricia Wilson</b> (née O'Brien) (BA 1937) died April 2014, aged 97	<b>Douglas Phillips</b> (BSc 1957) died May 2014, aged 82
<b>John Hawkes</b> (BSc 1938, MSc 1940) died May 2014, aged 96	<b>Dr Alan Turner</b> (BSc 1957, PhD 1960) died February 2014, aged 78
<b>Professor Bernard Martin</b> (BSc 1940, MSc 1949) died February 2014, aged 93	<b>John Crittall</b> (BSc 1958) died July 2014, aged 80
<b>John James</b> (BSc 1945) died April 2014, aged 88	<b>Tessa Varney (née White)</b> (BA 1958) died November 2013, aged 77
<b>Anthony Baxter</b> (BDS 1947) died March 2014, aged 90	<b>John Hichens</b> (BA 1959) died May 2014, aged 76
<b>Lilian Harris</b> (BA 1947) died 2014, aged 88	<b>James Patmore</b> (BSc 1959) died March 2014, aged 76
<b>Doreen Melrose (née Bettany)</b> (BA 1948, Diploma 1949) died June 2014, aged 86	<b>Clifford Wheatley</b> (BSc 1960) died March 2014, aged 74
<b>Elaine Binns (née Jordan)</b> (BA 1951, Cert Ed 1952) died February 2014, aged 83	<b>Robert Young</b> (BSc 1960) died January 2014, aged 77
<b>Dr Dennis Fox</b> (MB ChB 1951) died June 2014, aged 85	<b>William Mosley</b> (LLB 1963) died March 2014, aged 73
<b>Raymond Hillman</b> (BA 1951) died March 2014, aged 84	<b>Susan Oliver</b> (BA 1963) died 2012, aged 70
<b>Professor Bruce Hyde</b> (BSc 1951, PhD 1962, DSc 1974) died February 2014, aged 88	<b>Mary Roberts</b> (BA 1964, MA 1968) died April 2014, aged 71
<b>Brenda Carne (née Hey)</b> (BA 1952) died March 2014, aged 82	<b>Roland Ford</b> (BSc 1965, MSc 1967) died June 2014, aged 70
<b>Dr Kenneth Edmondson</b> (MB ChB 1952) died 2014, aged 85	<b>Dr Ralph Barry</b> (BSc 1966, MB ChB 1967) died April 2014, aged 73
<b>Alexander Gillanders</b> (BSc 1952) died January 2014, aged 86	<b>Colin Wraight</b> (BSc 1967, PhD 1971) died July 2014, aged 68
<b>June Cooling</b> (BA 1953, MA 1956) died 2014, aged 82	<b>Paul Gardner</b> (BSc 1968) died December 2013, aged 66
<b>Leslie Helps</b> (BSc 1953) died December 2013, aged 83	<b>Dr Margaret Goldsmith (née Pruden)</b> (PhD 1968) died April 2014, aged 93
<b>Prince Paul Odescalchi</b> (BA 1953) died April 2014, aged 90	<b>Professor Alexander Livingston</b> (PhD 1968) died 2014, aged 74
<b>John Harris</b> (BA 1954, Cert Ed 1957) died April 2014, aged 80	<b>Emeritus Professor John Macmillan</b> (DSc 1968) died May 2014, aged 89
<b>Thomas Winstone</b> (BDS 1954) died December 2013, aged 86	<b>Dr Elanor Warren (née Manson)</b> (PhD 1968) died 2013
<b>Dr Frank Clarke</b> (BSc 1955) died December 2013, aged 79	<b>Emeritus Professor Richard Horsley</b> (MSc 1970) died 2012, aged 71
<b>Dr David Watkins</b> (BSc 1955, PhD 1958) died April 2014, aged 80	<b>Shirley Beavor (née Millican)</b> (BA 1971) died January 2014, aged 64
<b>Professor Brian Chalmers</b> (BSc 1956, PhD 1961) died November 2013, aged 78	<b>Dr Jagdish Chawla</b> (MD 1973) died January 2013, aged 79
<b>Glenys Sturgeon (née Hardman)</b> (BA 1956) died August 2013, aged 78	<b>Kevin Elyot</b> (BA 1973) died June 2014, aged 62
<b>Dr Colin Hemming</b> (MB ChB 1957) died May 2014, aged 82	<b>Richard Iwaniak</b> (BSc 1974) died June 2014, aged 62
	<b>David Jones-Parry</b> (LLB 1975) died January 2014, aged 59
	<b>Anne Yates</b> (BA 1976) died August 2013, aged 58
	<b>Amanda Brook (née Runnacles)</b> (BA 1977) died 2014, aged 59



**The Rt Hon Mr Tony Benn (Hon LLD 2001)**, politician and Bristol MP, died March 2014, aged 88

Honorary graduate Tony Benn was an MP in Bristol for more than 30 years, and had a huge impact on students. Benn first entered politics at the age of 25, winning the by-election as Labour candidate for Bristol South in 1950 and eventually becoming Secretary of State for Industry in 1974 under Harold Wilson. Benn retired from Parliament in 2001, famously claiming that he wanted to 'spend more time on politics'.


You can find a link to a moving tribute from alumnus and ITV presenter, Alastair Stewart OBE (1970-72, Hon LLD 2008), who was Vice-President of the Students' Union in 1972-73, online at [bristol.ac.uk/nonesuch](http://bristol.ac.uk/nonesuch).

<b>Paul Collen</b> (BA 1977) died 2014, aged 58	<b>Philippa Lynch</b> (LLB 2002) died 2013, aged 48
<b>Hugh Excell</b> (BA 1977) died July 2014, aged 70	<b>William Nicholas</b> (Hon MA 2002) died July 2014
<b>Anthony Zausmer</b> (BSc 1977) died February 2014, aged 57	<b>Rebecca Long</b> (BA 2003) died 2014, aged 32
<b>Dr David Robinson</b> (BSc 1981) died May 2014, aged 54	<b>Sandeep Shetty</b> (BSc 2000, MB ChB 2003) died 2014, aged 35
<b>Professor Colin Pillinger</b> (DSc 1985) died May 2014, aged 70	<b>Peter Wherritt</b> (Diploma 2003) died February 2014, aged 66
<b>Jayne Rhodes</b> (BSc 1985) died June 2014, aged 51	<b>Helen Beckwith (née McHale)</b> (LLB 2005) died October 2013, aged 31
<b>Dr Cherida Stobart (née Hopper)</b> (BSc 1985, BVSc 1986) died 2013, aged 51	<b>Professor Dora Akunyili</b> (Hon LLD 2006) died June 2014, aged 59
<b>Anne-Marie Drozd</b> (BA 1987, Cert Ed 1996) died May 2014, aged 49	<b>Batook Pandya</b> (Hon MA 2009) died February 2014
<b>Desmond Gillespie</b> (MPPS 1987) died November 2013, aged 66	<b>Michael Verity</b> (LLM 2012) died July 2013, aged 69
<b>Dr Pamela Gilbert</b> (MA 1988, PhD 1996) died February 2014, aged 87	<b>Amanda Hansen</b> (JYA) died January 2014, aged 29
<b>Charlotte Horrex</b> (LLB 1989) died 2012, aged 46	<b>August Atkinson</b> (BSc 2009-) died April 2014, aged 22
<b>Alison Gunn</b> (BSc 1991) died February 2014, aged 45	.....
<b>Garry Mills</b> (LLM 1992) died 2014, aged 47	<b>John Dixon</b> former staff member, died June 2014
<b>Lindsay Newby (née Peacock)</b> (BSc 1992) died April 2014, aged 44	<b>Professor Jake MacMillan FRS</b> former staff member, died May 2014
<b>Matthew Lewis</b> (BA 1993, Cert Ed 1994) died April 2014, aged 42	<b>Joan Langan</b> former staff member, died 2014
<b>Michael Scott</b> (BA 1994) died January 2014, aged 43	<b>Professor Ronald Milne</b> former staff member, died 2014
<b>Heather Metters</b> (LLB 1995) died 2014, aged 53	<b>Joyce Ferrier</b> former staff member, died December 2013
<b>Julia Armitage</b> (Cert 2002) died 2014, aged 58	<b>Dr Yon Richard Mayhew</b> former staff member, died 2013
	.....

Please email any notifications for alumni in memoriam to [alumni@bristol.ac.uk](mailto:alumni@bristol.ac.uk)

# Calendar November 2014 to July 2015

Make sure you're invited to relevant events in your area by updating your details at [bristol.ac.uk/alumni/mydetails](http://bristol.ac.uk/alumni/mydetails).

<b>November</b>	<b>April</b>
<b>Monday 10 November</b> <b>Careers event and drinks reception for 2014 graduates</b> // London	<b>Wednesday 29 April</b> <b>Annual student, staff and alumni golf challenge</b> // Bristol
<b>Monday 25 November</b> <b>Bristol Talks</b> <b>Speaker</b> Tom Morris, Artistic Director of the Bristol Old Vic Theatre // London	<b>Friday 17 April</b> <b>Beijing Alumni Reception</b> // Beijing
<b>December</b>	<b>Monday 20 April</b> <b>Shanghai Alumni Reception</b> // Shanghai
<b>Thursday 11 December</b> <b>Alumni Association Student Awards and Reception</b> // Bristol	<b>July</b>
<b>Monday 15 December</b> <b>London Branch Alumni Carol Service</b> // London	<b>Friday 10 to Sunday 12 July</b> <b>Best of Bristol Alumni Weekend 2015</b> // Bristol
<b>February</b>	
<b>Saturday 7 February</b> <b>Wills Hall Association Annual Reception</b> // Bristol	

## Bristol needs you

Are you passionate about Bristol's future? Do you have ideas about how to develop your alumni community, and represent alumni views to the University?

We're looking for enthusiastic and committed volunteers to represent alumni to the University's decision-making bodies in a variety of roles on the Convocation and Alumni Association Committee, and Court.

To find out about each of these roles, and apply online, please visit [bristol.ac.uk/take-part](http://bristol.ac.uk/take-part). Applications close on Friday 27 March 2015.

Voting will open in May 2015 and close on Friday 10 July 2015. For a postal ballot, please contact the Campaigns and Alumni Relations team on +44 (0)117 394 1051 or [alumni@bristol.ac.uk](mailto:alumni@bristol.ac.uk).





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Your gift will inspire generations of students to enquire, innovate, and bring real change to the world we live in.

**Contact:**

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