

# TURNER PRIZE 2012



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## LEEDS

ALUMNI  
MAGAZINE

ISSUE  
**13**

SPRING / SUMMER 2013

06

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How a discovery at Leeds a century ago is still at the forefront of scientific knowledge

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Creating a low-carbon urban environment



UNIVERSITY OF LEEDS

## FROM THE EDITOR



**Phil Steel (English 1997)**  
Head of Alumni Relations

Exactly a century ago, a father-and-son team of scientists at Leeds began researching a new analytical technique. So far-reaching were its consequences for science and engineering that it's inconceivable to picture a world without the discoveries made by the Braggs, here at Leeds. And yet it's not a well-known story. We tell it here.

The work of all our Leeds people continues to have an impact across the world. Research by Professor Andy Gouldson and his team on low-carbon cities is just one example you can read about.

2013 is a year of anniversaries – the London branch of the Leeds University Alumni Association celebrated its centenary, and Leeds' East Asian Studies department marks its 50-year anniversary with a series of events in the autumn.

It's also a year of change. And so this summer we say farewell (and thank you) to Professor Michael Arthur, our outgoing Vice-Chancellor, and welcome Sir Alan Langlands to the Leeds community. You can hear from both of them in the pages of this magazine.

Finally, we've redesigned our website to make it easier for you to contact fellow alumni, update us on what you're doing, comment on our news and play a part in Leeds life. So have a look at [www.alumni.leeds.ac.uk](http://www.alumni.leeds.ac.uk) and join our online community. Don't miss out!

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*This magazine is also available for download from [www.alumni.leeds.ac.uk](http://www.alumni.leeds.ac.uk) or can be emailed out on request*

**Thanks**  
Kathy Fairclough, Chris Hammond, Emma McKeown, Kathryn Fisk

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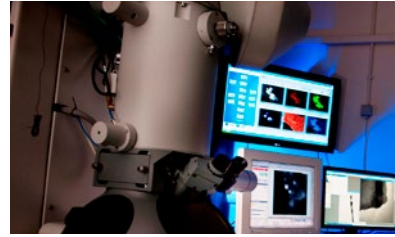
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Elizabeth Price installation view, BALTIC, Gateshead 2012. Courtesy of the artist and MOTINTERNATIONAL



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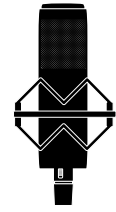
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COVER IMAGE: ELIZABETH PRICE (PHD FINE ART 1999), TURNER PRIZE WINNER 2012. THE TURNER PRIZE IS AN ANNUAL PRIZE PRESENTED TO A BRITISH VISUAL ARTIST UNDER THE AGE OF 50. IT HAS BECOME ARGUABLY THE UK'S MOST FAMOUS AND WIDELY-DEBATED PRIZE.  
PHOTOGRAPHER: LUCY DAWKINS, TATE PHOTOGRAPHY



# ALUMNI NEWS



ALICE LEVINE IS JUST ONE OF MANY LEEDS VOICES YOU'LL HEAR ON BBC RADIO. FIND OUT WHO ELSE IS A LEEDS GRADUATE AT [WWW.ALUMNI.LEEDS.AC.UK/PROMINENT](http://WWW.ALUMNI.LEEDS.AC.UK/PROMINENT)



## HITTING THE AIRWAVES

Alice Levine (English Language 2008) may have been recognisable based on appearances as former television personality on MTV and Bit on the Side, but her recent promotion to co-host on Radio 1 might make her infamous by voice alone. The new late-night DJ presents cutting-edge music and interviews the music industry's most progressive artists on the programme's 10pm – 12am time slot. The Independent listed Alice as "one to watch" in 2013.

▲ **PHOTO:**  
ALICE LEVINE  
**CREDIT:**  
GIANNI DILIBERTO  
PHOTOGRAPHY

▶ **PHOTO:**  
EWAN MCLENNAN

1. **PHOTO:**  
DAN SMITH  
**CREDIT:**  
MIKE MASSARO

2. **PHOTO:**  
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CHALLENGE  
**CREDIT:**  
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## SOARING SINGERS



A friend discovered Dan Smith (English Language and Literature 2007) writing and producing his own music in his Leeds flat. Now Bastille, Dan's band, has rocketed from a solo project to a full-fledged group, playing at sold-out festivals and reaching No 1 on the UK charts with their debut album *Bad Blood*. "You can't imagine anything more mind-blowing than being onstage in front of 1,500 people, and pretty much everyone in the room shouting along to one of your songs," Dan says. "That's such an amazing feeling."



Ewan McLennan (Popular and World Musics 2008) won the 2013 Spiral Award for Best Male Singer, an acoustic, folk, blues and roots prize. He has received several accolades over the last few years, including the prestigious BBC Horizon Award. He now tours the UK and has finished recording for *Transatlantic Sessions 6*, to be televised in the autumn.



## REVISITING v.

When shown as a film on Channel 4 in 1987, Tony Harrison's (Latin and Linguistics 1958, DLitt 2004) poem "v." met with controversy for its explicit language. Twenty-six years later he performed the poem, about his parents' vandalised grave in Beeston, live on Radio 4.



## QUIZ MASTERS

Restaurant critic Jay Rayner (Political Studies 1987), comedian Alistair McGowan (English 1986), political correspondent Libby Wiener (History 1981) and Nature editor David Adam (BEng Chemical Engineering 1993, PhD Environmental Science 1998) battled Bristol alumni on BBC's 2012 University Challenge. Answering quiz questions about festive foods and much more, the four graduates represented Leeds on the season's first episode. Jeremy Paxman (Honorary LLD 1999) hosted.

## MARKETING MAVEN

At Li & Fung, the global leader in consumer exports, Linda Tam (Management Studies and Operational Research 1987) works as Senior Vice-President of Brand Management and Marketing. She creates growth plans, shop concepts and business operations for retail units throughout Asia, particularly China. While ensuring brand consistency across all sectors, Linda manages marketing campaigns in each country and also launches new stores.

## NEW ROLE AT NHS

Matt Tee (Mathematics 1986) has taken the role of Chief Operating Officer at the National Health Service (NHS) Confederation, which represents the NHS to Government and the media. Matt's focus will be on engaging with member organisations and building partnerships with the private sector. With his background in communications, Matt will work to make sure that the voice of the

◀ **PHOTO:**  
TONY HARRISON  
**CREDIT:**  
JASON ALDEN /  
EYEVINE

health service is heard. Previously he served as a Permanent Secretary in the Civil Service.



▲ **PHOTO:**  
PETER HENDY

2. **PHOTO:**  
GEORGE PSARIAS  
**CREDIT:**  
ADAM ROBINSON  
PHOTOGRAPHY

## KNIGHT FOR TRANSPORT

Transport Commissioner Sir Peter Hendy CBE (Economics and Geography 1975) received a knighthood from Princess Anne at Buckingham Palace for his long-serving contribution to Transport for London. He was specially honoured for his work in planning and managing transport for the 2012 Olympics and also for charitable fundraising. He advises graduates that they can achieve similar success: "When I see our graduates, which I do every autumn, I tell them I was where they are 37 years ago. They can make it, too," speaking about his start as a graduate trainee for London Transport.

## SERVING UP SUCCESS



Chef and Managing Director George Psarias (MBA 1997) opened The Olive Tree Greek restaurant 30 years ago and now runs three throughout Leeds. The family business serves up Greek cuisine using fresh ingredients from all over Yorkshire. In 2012, George and his son appeared on Channel 5's *Kitchen Wars* with Marco Pierre White and George competed on ITV's *Best Dish: The Chefs* earlier in the year. George regularly cooks on TV, from BBC's *Food & Drink* to ITV's *This Morning* and *Sky* as well as appearing on London Greek Radio and BBC Radio Leeds.

## ONLINE ENTERPRISES ON THE RISE

Business guru Nancy Cruickshank (History 1993) is no stranger to digital enterprises. She recently served as launch CEO of Weve, a mobile commerce platform for the UK's three largest mobile network operators, but her ongoing passion lies in online beauty retail. As founder of MyShowcase, Nancy created an online retail opportunity





## IN BRIEF

PHOTO:  
NANCY CRUICKSHANK  
CREDIT:  
© MAKSIM KALANEP



for independent beauty products that could be sold either online or from the comfort of privately-hosted events. Nancy said: "I loved my time at Leeds. With such a huge population of students and a vibrant student community, every day brought new experiences and interesting conversations."

Alisa Amupolo (MA International Communications 2008) founded [www.infomation.na](http://www.infomation.na), an online media solution that aggregates information in real time to end users free of charge. She also consults on strategy and transformation in Namibia, mainly in the information and communications technology (ICT) sector; current projects involve the Communications Regulatory Authority of Namibia and Namibia Statistics Agency. To create job opportunities and curb the high unemployment rate in Namibia, Alisa formed a Nation Foundation Trust. She was recognised as one of the 30th emerging leaders of Southern Africa in 2010.

PHOTO:  
ALISA AMUPOLO  
CREDIT:  
© SUSAN NEL  
PHOTOGRAPHY



Ed Cartwright (History 2010) champions locally-grown foods, promoting partnerships between food and beverage suppliers and buyers in Yorkshire. He also oversees marketing and sales at Swillington Organic Farm.

Achumile Majija (MBA 2010) leads Group Risk and Capital Optimisation at Prudential. He has received honours for his contribution to youth development, and works to curb poverty and unemployment in South Africa.

Founder and managing director of Limehouse, Nick Howard (Bretton Hall, Theatre Acting 2002) won Yorkshire Post's 2012 Young Entrepreneur of the Year. His team received Agency of the Year and Award of Excellence for audiovisuals from the Institute of Internal Communication.

At age 36, Richard Wright (LLB Law 1997) has become one of the youngest barristers to join the Queen's Counsel. He is a member of No 6 Chambers in Leeds, specialising in Criminal Law.

Ben Ib (Fine Art 1997) has directed cutting-edge music videos for some of rock and pop music's biggest icons, including Kylie Minogue, Robbie Williams and Sir Paul McCartney.

Chief Executive Officer Brian St John (MA European Union 2005) of Foundation for Medical Services manages development of Malta's Mater Dei Hospital Oncology Centre for adolescents and palliative-care patients.

Peter Suh-Nfor Tangyie (MED TESOL 1993) is principal of GBHS Bamenda, the second most populous Anglophone secondary school in Cameroon, with 5,000 students and 200 staff.

Senior Engineer Pak Keung Mui (Civil and Structural Engineering 2005) conceptualises and develops national railway projects for Singapore Land Transport Authority.

Labour Party Councillor Thomas Murray (Metallurgy 1972, PGCE 1973) has been made Lord Mayor of Leeds. He served on the Leeds City Council for Garforth and Swillington wards.

# JOIN THE LEADERS

Are you looking to enhance your career potential, pursue your subject passion or thinking about a change in direction?

As a Leeds alumni you may be eligible for a 10% tuition fee bursary\*. Attend our Postgraduate Open Day to find out more.

POSTGRADUATE  
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To book your place visit:

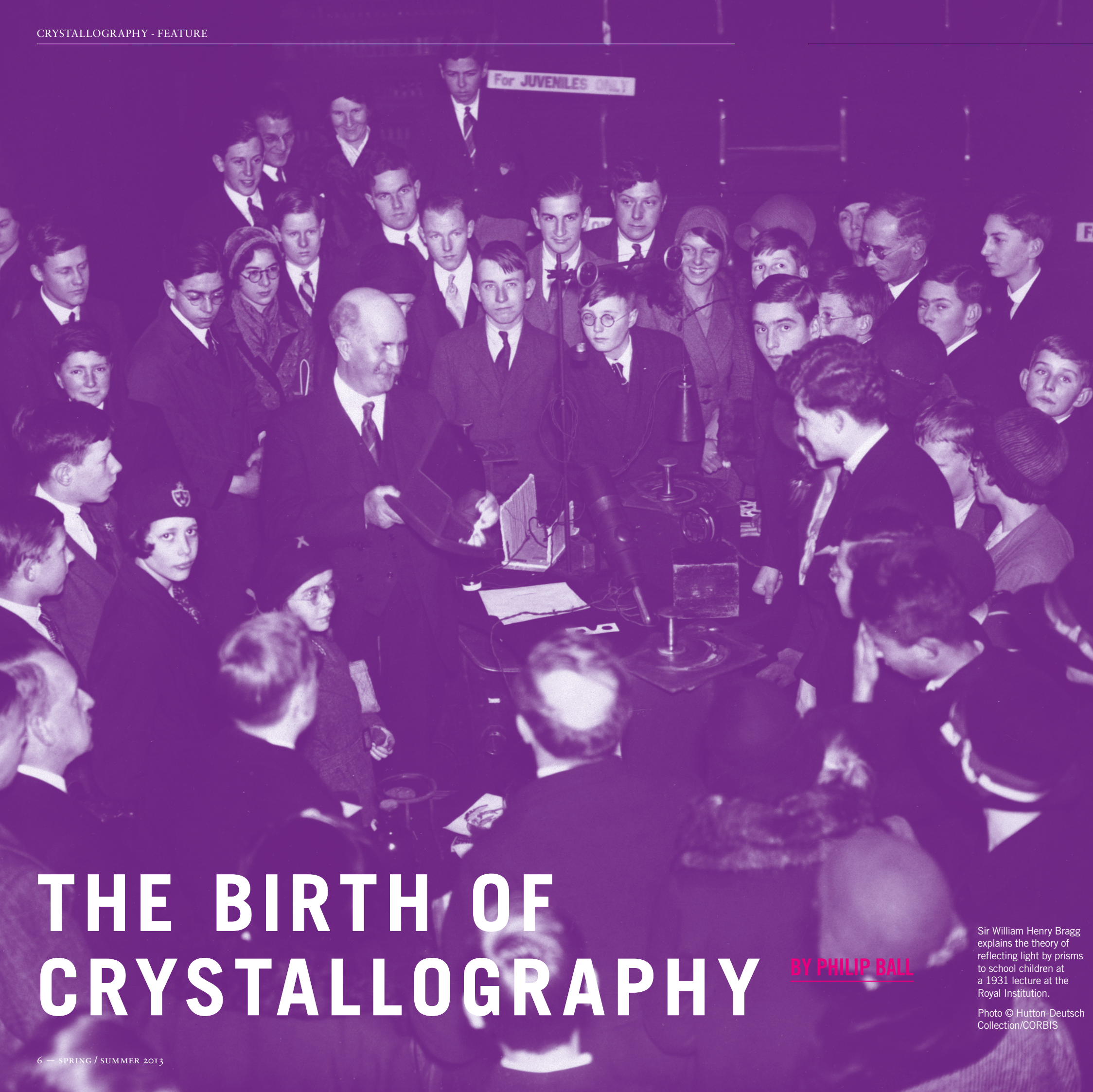
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# THE BIRTH OF CRYSTALLOGRAPHY

BY PHILIP BALL

Sir William Henry Bragg explains the theory of reflecting light by prisms to school children at a 1931 lecture at the Royal Institution.

Photo © Hutton-Deutsch Collection/CORBIS

**STRUCTURAL BIOLOGY, GEOLOGY, ENGINEERING, CHEMISTRY, PHYSICS. BRAGG'S LAW. SPECTROMETERS. DIFFRACTOMETERS. PIONEERING WORK DONE AT LEEDS A CENTURY AGO STILL FEEDS INTO MUCH OF MODERN SCIENCE. THIS IS HOW IT STARTED**

The birth of X-ray crystallography at Leeds in 1912-1913 through the work of Sir William Henry Bragg and his son Sir W. Lawrence Bragg was one of the culminating episodes in arguably the most extraordinary three decades in the physical sciences.

Between 1890 and the end of the First World War, X-rays and radioactivity were discovered, the theories of relativity and quantum mechanics developed, and the constitution of atoms first explained. During this period Marconi developed radio telecommunication, the Wright brothers made their first flights and Max Planck proposed quantum theory. These were, in other words, the formative decades of the modern age.

It is not often appreciated how important to that incipient modernity the Braggs' work was. William and Lawrence paved the way to countless scientific and technological breakthroughs by revealing the arrangement of atoms in crystals. Although it had been long suggested that crystals were made up of a regular pattern of atoms and molecules, there was previously no way of knowing precisely how these were arranged.

X-ray crystallography is the chemist's most reliable tool for deducing the shapes and arrangements of molecules. It tells us about the nature of terrestrial and extra-terrestrial minerals. Through an understanding of crystal structures, it became possible to develop new and better materials. When applied to the molecules of life, it ushered in the age of molecular biology and genetics – most famously as the technique that revealed the structure of DNA to James Watson and Francis Crick in 1953.

For their achievements, William and Lawrence Bragg were awarded the 1915 Nobel Prize in Physics. In 2013, the Braggs' work was named the third most important British innovation of the 20th century in an online vote of 80,000 people.

Yet research on crystallography had not even begun when the Braggs arrived in England from Australia six years before the Nobel award. Such immediate recognition is rare for Nobel Prizes, and it testifies both to the importance of their work and the clarity with which they explained and demonstrated its potential in many areas of science.

Cumbrian-born William came to Leeds from the University of Adelaide, Australia, where he had established a solid international reputation for his work on radioactivity and the nature of the new invisible 'emanations' from matter: X-rays, gamma rays and alpha particles. As Professor of Physics and Mathematics, William had found in Adelaide a meagre laboratory, so he set about making his own equipment by apprenticing himself to a local instrument maker.

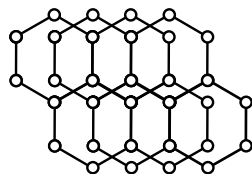
When Leeds needed a new Cavendish Professor of Physics in 1907, the English chemist Frederick Soddy recommended William to the University, saying that, when he had visited Adelaide, "I was much struck with the spirit he has created around him." William was offered and accepted the post.

In January 1909 William and his family – wife Gwendoline, sons Lawrence and Robert and daughter Gwendy – boarded the coal-fired *Watarah* for the journey to England, arriving in Plymouth in March. They rented a house in fashionable Headingly as well as a weekend

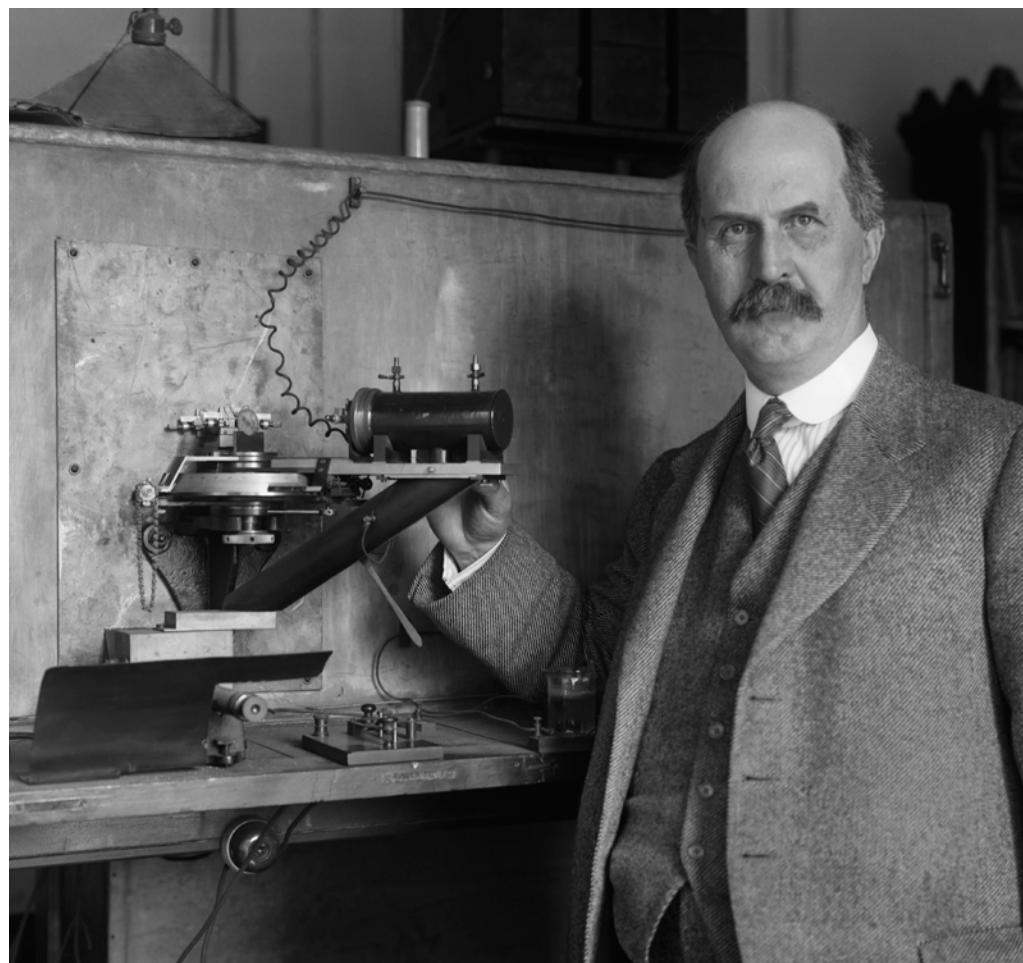




BRAGG X-RAY SPECTROMETER  
ENGLAND, 1910-1926



BRAGG EXPLAINED THE IDEA OF SHEETS OR PLANES OF ATOMS WITH REFERENCE TO THE ROWS OF VINES IN A VINEYARD



cottage near Bolton Abbey 20 miles north of the city. Lawrence enrolled, as his father had 28 years earlier, at Trinity College, Cambridge.

William was deeply interested in the nature of X-rays. At the time a vigorous debate raged among physicists about whether X-rays were 'corpuscles' or 'pulses' – particles or waves – the latter widely believed to travel through an invisible medium called the ether. Although William preferred the particle interpretation, X-rays are in fact electromagnetic waves, like light, but of a very much smaller wavelength. Yet Albert Einstein argued in 1905 that light can also be considered to be like a stream of particles, called photons: this 'wave-particle duality' was one of the first fruits of the nascent quantum theory.

Given this interest, the Braggs, father and son, were fascinated by news of work in Munich by Max Laue, a student of Max Planck. Laue found that when a narrow beam of X-rays was directed at a crystal, the scattered rays formed a geometric pattern of bright spots on a photographic plate placed behind the sample. Laue attempted to interpret the pattern but could not account for all the spots. Lawrence, still at Cambridge, recalled that he and his father discussed Laue's findings intensely "when we were on holiday at Cloughton on the Yorkshire coast."

Over the summer and autumn of 1912, William and Lawrence collaborated in the Leeds Physics laboratory. Writing in 1961, Lawrence pointed out how adept William was in the laboratory. "My

▲  
**PHOTO:**  
WILLIAM HENRY  
BRAGG WITH HIS  
SPECTROMETER,  
c1910. WILLIAM  
ENJOYED THE  
SERVICES OF AN  
EXCELLENT WORKSHOP  
AT LEEDS, LED BY  
HEAD MECHANIC  
CH JENKINSON

**CREDIT:**  
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father was supreme at handling X-ray tubes and ionization chambers. You must find it hard to realize these days what brutes X-ray tubes then were." At Leeds, William had rather better technical support than Lawrence did in Cambridge, which still pursued a "sealing wax and string" approach to experimentation. William, in contrast, enjoyed the services of an excellent workshop led by head mechanic C H Jenkinson.

It was Jenkinson who built, from William's design, a revolutionary instrument that could be used both to measure X-ray wave lengths (the technique of X-ray spectrometry) and to measure reflections from crystal plains (X-ray diffraction). The instrument, used both as a spectrometer and a diffractometer, partly superseded Laue's photographic technique in that it enabled precise measurements of the angles and intensities of the diffracted beams.

Adhering to William's 'corpuscular' view of X-rays, the Braggs at first sought to interpret Laue's bright X-ray spots on the basis that X-ray 'particles' were being channelled along 'avenues' between rows of atoms, an idea they described in a paper published in October 1912 in the journal *Nature*.

But later that month, shortly after his return to Cambridge for the Michaelmas term, Lawrence hit on a novel explanation. "The idea suddenly leapt into my mind," he later wrote, "that Laue's spots were due to the reflection of X-ray pulses by sheets of atoms in the crystal." What Lawrence understood was that the beam behaves as though it has been reflected by these sheets, or layers, as light is reflected by a mirror.

William explained the idea of sheets or planes of atoms in 1915 in the Leeds student magazine *The Gryphon* with reference to the rows of vines in a vineyard – not an obvious Yorkshire reference, but wine had been made in the Adelaide Hills since the early nineteenth century. As you walk through the rows of vines, every so often they



A PLAQUE OUTSIDE THE PARKINSON BUILDING COMMEMORATES THE WORK OF THE BRAGGS AT LEEDS

align and you can see them stretching away in parallel formation.

On this basis, Lawrence worked out how the reflection angles of the spots depend on the distances between sheets and the wavelength of the X-rays. He expressed this in a formula now known as 'Bragg's law,' which first appeared in a paper presented to the Cambridge Philosophical Society in November 1912 and was reported in *Nature* in December. Here he also showed that, by assuming a particular kind of arrangement of atoms in crystals of zinc sulphide, he could account perfectly for the X-ray pattern.

The Braggs' crucial realisation was that, if the X-ray diffraction pattern could be accurately predicted from a crystal structure, then one could also work backwards, deducing from the experimentally measured pattern, the structure of the crystal itself.

Of all the crystals whose structures were worked out principally during 1913 (sodium chloride, potassium chloride, calcium fluoride, zinc sulphide and diamond) it was the structure of iron sulphide which gave Lawrence "the greatest thrill," as he recorded long afterwards. This was the first structure in which the positions of the (sulphur) atoms were determined from the intensity (brightness) of the reflections. Lawrence recalled that "I worked it out in the drawing room of our house in Leeds and was so excited that I had to tell my aunt who was sitting in a corner all about it, with indifferent success."

The collaboration between father and son continued throughout the whole of 1913 and until the outbreak of war in 1914. Lawrence spent part of the spring and summer terms in 1913 at Cambridge but the rest of the year at Leeds. The Braggs' work, for which they jointly were awarded the Nobel Prize, was published in a series of papers by the Royal Society in London, marking the birth of X-ray crystallography.

William delivered talks on this new science around the country, at the British Association and in particular at the Solvay Conference. The conference – a roughly triennial

gathering of Europe's top physical scientists – was a particularly prestigious platform, and at the 1913 meeting on "The Structure of Matter" William discussed his work with Albert Einstein and Marie Curie, along with several scientists, such as Leon Brillouin and Frederick Lindemann, who went on to make important contributions to the understanding of diffraction and crystal structure.

Late in 1914, William wrote a long letter to the Leeds Vice-Chancellor Michael Sadler, pointing out the University's pre-eminence in X-ray diffraction. "The practical applications are likely to be of no less importance than the theoretical," he wrote. Although his request for funds was supported, Leeds couldn't match the offer in early 1915 of a professorship from wealthy University College London (UCL). William at first refused the offer, but by the time he accepted their second offer he had decided he needed to be in London at the centre of the war effort.

William's departure was not necessarily the tragedy for Leeds that it might have seemed at the time. The Braggs' seminal work here inevitably left a legacy. In 1929 William's student William Astbury, who worked with him at UCL and later at the Royal Institution in London, came to Leeds as a 'textile physicist.' Textiles was the manufacturing base on which Leeds had grown prosperous, and the hope was that research on wool and other economically important fibres might one day improve the manufacturing process.

X-ray crystallography had been initially applied to inorganic crystals, and the challenge of applying the same technique to the study of the large biological molecules found in fibres was considerable. Yet Astbury met the challenge and, thanks to a series of breakthrough papers on the structure of proteins and to his energetic proselytising, Leeds became famous as the "X-ray Vatican" and the home of molecular biology.



**PHOTO:**  
W. LAWRENCE BRAGG,  
WHO WORKED WITH  
HIS FATHER AT LEEDS  
WHILST A STUDENT AT  
CAMBRIDGE

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“  
AT THE 1913 MEETING  
ON "THE STRUCTURE  
OF MATTER" WILLIAM  
BRAGG DISCUSSED  
HIS WORK WITH  
ALBERT EINSTEIN AND  
MARIE CURIE

”

AFTER ONLY SIX YEARS THE BRAGGS WERE AWARDED A NOBEL PRIZE FOR THEIR WORK. NOT EVERYONE RECOGNISED THE IMPORTANCE OF THEIR WORK HOWEVER. "I WAS SO EXCITED THAT I HAD TO TELL MY AUNT ABOUT IT, WITH INDIFFERENT SUCCESS," WROTE LAWRENCE

## A LEEDS GRADUATE: FROM LEEDS TO MARS

Would the Braggs ever have looked up at Mars and imagined that, one day, an X-ray spectrometer would be there, gathering data on the planet's surface? Although only the size of a tin can, the Alpha Particle X-ray Spectrometer (APXS), developed by the Canadian Space Agency (CSA), MDA robotics and Professor Ralf Gellert's science team at University of Guelph, Canada, is sending an enormous amount of data about the geology of Mars back to Earth. Attached by an arm to NASA's Curiosity rover, the instrument determines the chemical composition of the rocks and soil in the red planet's Gale Crater.

CSA's mission scientist for Curiosity is a physicist who studied at Leeds. Vicky Hipkin (PhD Atmospheric Physics 2000), Senior Program Scientist, Planetary Exploration, says "Curiosity's APXS is amazingly sensitive given its small size. William Henry Bragg's spectrometer at Leeds has been miniaturised using modern technologies – the silicon drift detector and sensitive electronic circuitry for pulse detection. APXS data are very important to geochemists on the Curiosity team. Ratios of trace abundances of soluble elements like chlorine and bromine can tell us about the water history of Mars, and ratios of sodium, potassium and silicon oxides can be used to understand rocks of volcanic origin."



## A LEEDS GRADUATE: STILL LEADING THE WAY

A leading pioneer in electron microscopy, Ondrej Krivanek FRS (BSc Physics 1971) is developing a new generation of electron microscopes and other electron-optical instruments. Nion, a company he co-founded 15 years ago near Seattle, USA, makes the world's leading scanning transmission electron microscopes, which are able to focus a beam of electrons on one atom at a time to determine its chemical type, its precise location in a complex structure and its atomic environment.

Both the Bragg apparatus and the electron microscope use a radiation with a wavelength short enough so that individual atoms can be distinguished. Compared to the X-rays used in the Bragg instrument, the electrons used in electron microscopes have an additional advantage: they can be focused into a beam that's narrower than a single atom. Such precise focusing requires highly perfected electron lenses. These have only become available due to a recent breakthrough in electron optics called aberration correction, a technique pioneered by Nion.

Nion's instruments have many other features such as an unprecedented stability that allows them to keep the beam centred on each single atom for several minutes. They are found in only a few laboratories around the world. Two are located at the UK SuperSTEM laboratory, based at a very stable vibrational site in Cheshire. Bragg's diffractometer showed that matter is made of atoms, and led to figuring out how the atoms are arranged. SuperSTEM is now able to image the individual atoms and analyse them one atom at a time.



▲ **PHOTO:**  
A HIGH RESOLUTION  
FIELD EMISSION GUN  
SCANNING ELECTRON  
MICROSCOPE IN THE  
LEEDS ELECTRON  
MICROSCOPY AND  
SPECTROSCOPY  
CENTRE

“

THE BRAGGS' CRUCIAL REALISATION WAS THAT, IF THE X-RAY DIFFRACTION PATTERN COULD BE ACCURATELY PREDICTED FROM A CRYSTAL STRUCTURE, THEN ONE COULD ALSO WORK BACKWARDS, DEDUCING FROM THE EXPERIMENTALLY MEASURED PATTERN, THE STRUCTURE OF THE CRYSTAL ITSELF

”

In 1938 one of Astbury's research students, Florence Bell, produced the first X-ray diffraction image of DNA, a crucial step that led in 1953 to one of the most important discoveries of the 20th century: the double-helical structure of DNA.

Astbury's work is one example of the significance of the Braggs' research not only within the confines of crystallography, but more broadly across science, engineering and societal boundaries. It has been fundamental to the development of various scientific fields within industry, including microelectronics of pharmaceuticals, aerospace and power generation.

The influence of William Bragg's time at Leeds continues to resonate at the forefront of science a century later.

## LEEDS TODAY

### MOLECULAR BIOLOGY

The Astbury Centre of Structural Molecular Biology brings together around 250 researchers from across

the University to understand the molecular basis of life, and much of this work is based on X-ray crystal structures.

Thomas Edwards, Deputy Director of the Centre, uses X-ray crystallography in much the same way as the Braggs, but on a vastly different scale. Instead of using diffraction to determine the structure of sodium chloride (which has two atoms), the lab team is working with biological molecules made up of hundreds of thousands of atoms.

They determine the 3-D structure of proteins that perform normal tasks within living organisms, and can identify how this is different to a protein that causes disease. “In biology, structure is function,” says Thomas. “By seeing the shape of a protein, we understand better how it works or, in some cases, doesn't.”

Developing drugs to stop malfunctioning proteins, Thomas says, is “a bit like a lock needing a key. Once we see the shape of the lock, we'll look for a small molecule that will fit into it.” Using crystallography to find the exact shape of the lock can speed up drug design by five to ten years.

Thomas is part of an Astbury Centre team of structural biologists and virologists that recently discovered how the Schmallenberg virus, which causes birth defects and still births in some animals, could be targeted by anti-viral drugs. They deciphered the 3-D shape of the Schmallenberg virus nucleocapsid protein and saw the proteins bind together in a ring-like structure, held together by contacts between the protein units, a bit like people holding hands in a circle. Thomas says: “We are now designing small molecules that could block ring formation and could therefore become an effective antiviral drug.”

## MATERIALS ENGINEERING

Professor Rik Brydson leads the Leeds Electron Microscopy and Spectroscopy Centre (LEMAS) as well as coordinating the National Facility for Electron Microscopy (SuperSTEM). Based at Daresbury Laboratories in Cheshire, SuperSTEM houses the UK's best electron microscopes (see Ondrej Krivanek sidebar) and was formed by a consortium of five universities and four collaborating partners.

The diffraction and scattering of high energy electrons rather than X-rays makes it possible to actually directly image the planes of atoms that give rise to the reflection or diffraction of the electron or X-ray waves.

SuperSTEM has contributed to an atomic level understanding of the structure of many advanced materials used in electronics, chemical catalysis and in the application of nanotechnology to healthcare. Notably it has made a significant contribution to the understanding of the new material called graphene (a single layer of hexagonally bonded carbon atoms) for which researchers at Manchester received the Nobel Prize for Physics in 2010.

Piezoelectric ceramics are all around us in sensors and actuators and are the irreplaceable heart of

modern devices such as SONAR, medical ultrasound, fuel injection valves and parking sensors. Without using X-ray diffraction to inspecting the atomic structure in piezoelectric materials, researchers would be unable to observe the results of their atomic manipulation and engineering efforts.

Because current commercial piezoelectric materials only work well up to around 200°C, their development has been limited. Ionix Advanced Technologies, a spin-out company based on work done in the Institute of Materials Research by Dr Tim Stevenson and Dr Tim Comyn, is creating novel piezoelectric materials that can operate at high temperatures and in extreme environments. If these materials could be used in valves and transducers for cars and aeroplanes at temperatures in excess of 500°C, they would enable the development of cleaner, more efficient transport systems.

“

IN BIOLOGY, STRUCTURE IS A FUNCTION. BY SEEING THE SHAPE OF A PROTEIN, WE UNDERSTAND BETTER HOW IT WORKS, OR IN SOME CASES, DOESN'T

”

## CENTENARY BRAGG CHAIR

To mark the Braggs' achievements, the University is creating a new Professorial post (the Centenary Bragg Chair) in collaboration with the Royal Academy of Engineering, Diamond Light Source and Infineum UK. This aims to advance engineering applications of crystallography using one of the most intense X-ray sources in the world – the Diamond Synchrotron – for studying changes in the structural arrangements of atoms in crystals in the manufacture and use of engineering materials. — (L)

## A LEEDS GRADUATE: SAVING LIVES WITH X-RAY SPECTROMETRY

The study of the structure of protein receptors in cancer cells and how they react to drugs is at the heart of how one Leeds graduate has saved women's lives around the world.

V Craig Jordan OBE (BSc Pharmacy and Pharmacology 1969, PhD Pharmacology 1973, DSc 1985, DMed 2001), an eminent specialist in drugs for breast cancer treatment and prevention, is known as “the Father of Tamoxifen” after doing his PhD on the oestrogen receptor (ER) binding with oestrogen or antioestrogen.

Today, Craig is Scientific Director and Vice Chairman of Oncology at the Lombardi Comprehensive Cancer Center, Georgetown University, Washington, DC. He uses conformational analysis of molecules binding to the ER to understand breast cancer cell death. “With conformational analysis we're still applying the Braggs' and Astbury's X-ray crystallography, this time to see how one shape of the complex causes survival and another death” says Craig. “This knowledge will help us help patients.”

Craig's new book *Estrogen Action, SERMs and Women's Health* (Imperial College Press) includes a chapter on X-ray crystallography.



# DEPARTMENT ROUND-UP

## BIOLOGICAL SCIENCES (MOLECULAR AND CELLULAR BIOLOGY)

Green tea and red wine contain natural chemicals that may disrupt Alzheimer's disease development, according to Professor Nigel Hooper and his team. By adding purified extracts of these substances to amyloid protein clumps – which latch onto brain cells, causing them to malfunction and die – the clumps are reshaped, making them less adherent and harmful to the cells.

## BUSINESS

Cultural etiquette and Mandarin for business are being taught at a new institute that will promote the understanding of Chinese culture and the teaching of Mandarin in the UK. The Business Confucius Institute at the University of Leeds is being opened in partnership with the University for International Business and Economics (UIBE) in Beijing, one of China's leading universities.

## CHEMISTRY

Chemists Adam Nelson, Steve Marsden and Richard Foster are part of a £170 million pan-European project to accelerate the development of the next generation of drugs. The European Lead Factory brings together university researchers, SMEs and seven pharmaceutical companies, and will develop and exploit a "library" of molecules that may serve as starting points in drug discovery programmes.

## COMMUNICATIONS

The actions and thoughts behind voting in a democracy are examined in How Voters Feel by Professor

Stephen Coleman. Through extensive interviews, he examines influences on decision-making – from memories, habits and media, to freedom, representation and duty. He offers a unique insight into how it feels to be a democratic citizen.

## EARTH AND ENVIRONMENT

Irish Bronze Age gold artefacts are unsurpassed in size and beauty, but the source of the gold remains a mystery. Rob Chapman has collected gold from all over Ireland and has matched the alloy compositions of artefact gold to natural gold. Gold used in the Early Bronze Age is most similar to that from the Mourne Mountains, but 1,000 years later, Croagh Patrick is the probable source.

## ENGINEERING

Animesh Jha, Professor of Applied Materials Science, and Abbas Dehghani-Sanij, Senior Lecturer in Mechanics and Robotics, were awarded a combined total of £1.6 million from the Engineering and Physical Sciences Research Council for their healthcare projects. Working with Leeds Dental Institute and Leeds Institute of Genetics, Health and Therapeutics, Professor Jha will develop a mineral layer to replace eroded tooth enamel, while Dr Dehghani-Sanij researches the manufacture of lower-limb prosthetics for improved performance and battery life.

## GEOGRAPHY

Tropical rainforests may lose less biomass to greenhouse gas emissions this century than expected, according to work by David Galbraith and his team, collaborating with researchers worldwide. Dr Galbraith says that despite their resilience, "we



▲ PHOTO: THE DAINTREE RAINFOREST IN AUSTRALIA

CREDIT: THIS WORK IS LICENSED UNDER THE CREATIVE COMMONS ATTRIBUTION-SHAREALIKE 2.5 GENERIC LICENSE.

▶ PHOTO: VINICIO CAPOSSOLA PERFORMS AS PART OF THE LIVITALY SERIES.

must improve our understanding of how tropical forests respond to increasing temperature and drought" as global climate systems continue to change.



## ITALIAN

Singer-songwriter Vinicio Capossola came to Leeds to perform his first UK concert outside of London after a talk called "Stories from Sailors, Prophets and Whales" with Gigliola Sulis, Director of Italian, and Italian journalist Stefano Salis. With influences as varied as Tom Waits, tango and rebetiko, Capossola evokes worlds pervaded by demons, grace, shadows and lost souls. The event was part of the LivItaly series, which brings contemporary Italian culture to Yorkshire.

## LAW

Dr Paul Wragg is one of four legal academics appointed as an Academic Fellow of the Honourable Society of the Inner Temple. The scheme recognises mid-career academics for their contributions to legal research and teaching. Dr Wragg's research primarily involves free speech theory applied to contemporary legal problems, such as privacy and the media.

## MATHEMATICS

Professor Carmen Molina-Paris and Dr Grant Lythe are modelling the process that combines molecules with membrane-bound receptors on blood vessels, and what causes those molecules to die, migrate or proliferate. Along with Dr Sreenivasan Ponnambalam in Biological Sciences they have received £245,031 from the Leverhulme Trust for their project "Understanding molecular mechanisms that determine cellular fate."

## MEDICINE (LEEDS INSTITUTE OF CANCER AND PATHOLOGY)

Oesophago-gastric cancer, the second leading cause of cancer deaths worldwide, is at the heart of work by Dr Heike Grabsch and her team. Yorkshire Cancer Research has granted £180,000 to find new drug targets over the next three years which will enable oncologists to offer new treatment options to patients in the near future.

## PERFORMANCE AND CULTURAL INDUSTRIES

At the Thackray Medical Museum, students brought the former Leeds Union Workhouse to life, allowing visitors to rediscover the harsh conditions of its Victorian inhabitants on a guided tour. The three performances held throughout the building dramatised the dangers of under-developed surgical procedures, the difficulty of obtaining medicine and the ever-looming fear of the workhouse.

## POLITICS AND INTERNATIONAL STUDIES

Duncan McCargo, Professor of Southeast Asian Politics, has told The Nation that Thailand's political leaders must come up with a solution to violence in the deep South. He calls the insurgency, which has led to more than 5,000 deaths since 2004, "one of the most serious conflicts in the world," and argues that decentralisation is needed to end it.

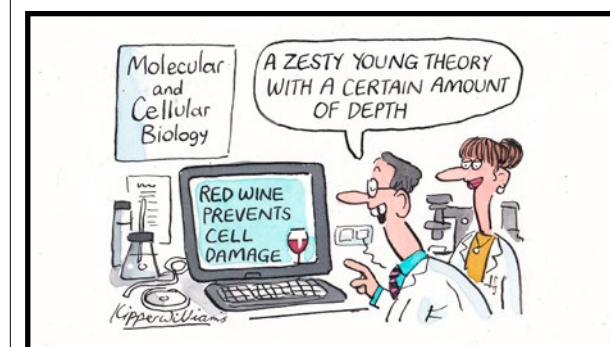


▶ PHOTO: A BUS WELL GUIDED BY ITS FOG LAMPS CRAWLS ALONG THE EMBANKMENT, 6 DECEMBER 1952

CREDIT: TOPFOTO

## TRANSPORT

In The House Magazine Dr James Tate published an article about air quality since the Great Smog of 1952. He says that while 4,000 people died as a result, the same amount occurs annually from London air pollution. Road transport, he says, is the main cause of pollution in urban areas, and the increasing amount of diesel cars is a leading factor. He concludes that cleaner vehicle technologies are necessary for short-term recovery.



## EAST ASIAN STUDIES CELEBRATES 50 YEARS



Carnaby Street, Twiggy, The Beatles and departments of Chinese Studies – just some of the things that made 1960s Britain special. Responding to the 1961 Hayter report on the study of East Asian and other 'exotic' languages, Leeds University set up an entirely new department of Chinese Studies, new not just in the sense of newly established, but in taking a strikingly new approach to the study of China. China would not be approached primarily through its ancient language and literature, on the model of European classical studies, but through the study of contemporary society and the language as currently spoken. It is hard to imagine now what a revolutionary approach that must have seemed in 1963 for the first cohort of students [pictured] who entered the University to study under the professorship of Owen Lattimore, the distinguished American scholar of China and Mongolia. Chinese Studies was later expanded with the addition of Mongolian, Japanese, and Thai, South-east Asian and Asia-Pacific Studies: now East Asian Studies within the School of Modern Languages and Cultures, it will celebrate its 50th anniversary this autumn with a programme of activities including a conference, seminars, exhibitions and a reception for alumni and friends. For further information see [www.leeds.ac.uk/arts/EAS50](http://www.leeds.ac.uk/arts/EAS50).



# NORTHERN STAR

## TURNER PRIZE-WINNER ELIZABETH PRICE MAY BE RISING BUT SHE STILL HAS HER FEET ON THE GROUND

BY MELISSA SNOWDEN

“If you’re a winner, you could probably swagger about for a few days,” commented a panel judge, minutes before the Tate Turner Prize winner was announced on 4 December 2012.

Swaggering seems to be the last thing Elizabeth Price might do, on the basis of her visibly shaken reaction upon the announcement that she had won one of the world’s most prestigious modern art prizes.

Perhaps this shows the unpretentious air of a woman less concerned with the award or its £25,000 prize money than memorialising local history. Or maybe it’s because The Woolworths Choir of 1979, her winning video installation about the devastating 1979 Manchester Woolworths department store fire, wasn’t top contender on the shortlist – even for the artist herself. “I haven’t had that many big shows, so I didn’t expect to be nominated. It will make a big difference to my career, I think,” Elizabeth said in a post-win interview.

Yorkshire-born and brought up in Bradford and Luton, Elizabeth earned her BA in Fine Art at Oxford University’s Ruskin School of Art, 1988, and MA in Fine Art at Royal College of Art, at the same time enjoying a side-career as a vocalist with pop bands Talulah Gosh and The Carousel. She returned to

Yorkshire for her PhD, entering the Art Practice course at Leeds, then in its infancy. Fellow classmate and now Lecturer in History of Art at Leeds, Dr Joanne Crawford (BA Philosophy and History of Art 1995, PhD Fine Art, History of Art and Cultural Studies 2001) recalls: “Only one person before Elizabeth had done it, so she was allowed to gather ideas and have the time to think about her practice in its wider context. I think the University fed that.”

The Woolworths Choir of 1979, her 18-minute prize-winning film installation, displays archival photographs and interviews with survivors, witnesses and those affected by the fire on giant screens, accompanied by a soundtrack of 1960s pop music, finger-snapping and hand-clapping, making the viewer’s experience one of total sensory immersion. “It’s definitely important to physically encounter my work, they aren’t just films,” says Elizabeth. “I build environments that are crucial to the whole experience, which is intended to be sensual as much as it is intellectual.”

Annually the Turner Prize goes to a living British artist under 50 years old for an outstanding exhibit within the year, and recipients have often been labelled as controversial. Joanne Crawford suggests that

▲ **PHOTO:**  
ELIZABETH PRICE  
INSTALLATION VIEW,  
BALTIC, GATESHEAD  
2012. COURTESY  
OF THE ARTIST AND  
MOTINTERNATIONAL

“  
I DON’T LIKE  
POINTING MY CAMERA  
AT OTHER PEOPLE.  
SO I FELT VERY  
CAUTIOUS ABOUT  
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OF THE WITNESSES  
”

while depicting the tragedy may risk controversy, Elizabeth’s thoughtful treatment of regional loss, culture and memory makes the work both sensitive and seductive. “She’s considerate. She thinks about the impact, she thinks about the importance of getting that message out there,” says Joanne. “The best works are the ones with intelligence behind it; hers are very intelligent because she thinks before she acts.” Does Elizabeth agree? “I try to have a relationship of generous and thoughtful encounter to whatever or whoever is the subject of my art,” she responds. “I actually rarely make art that directly features people. I don’t like pointing my camera at other people. So I felt very cautious about using the footage of the witnesses of the Woolworths fire.”

Joanne knew Elizabeth well while they were fellow Leeds students. They shared courses together and had the same social circle, spending time at hangouts like The Faversham near campus. “She was always lively in those respects, in a good way. That’s what I remember about her,” laughs Joanne. “I remember she had a quirky way of dress sense that impressed me, but she always kind of stood out. She was engaged, but also quite thoughtful about what she’d say before she said it. She wasn’t a kind



of 24-hour party animal; she took her work seriously, but she did like to go out and socialise with us.”

Elizabeth took advantage of the Leeds PhD programme to build and experiment with her creative portfolio. She welcomed opinions and ideas from academics and peers, held local exhibitions, engaged in art theory and practised with a diversity of media including film. Joanne suggests the interdisciplinary nature of study at Leeds encouraged Elizabeth to explore connections between everyday life and culture in her work.

After graduation, Elizabeth moved to London, teaching and doing hourly paid work to earn a living. “As for many artists, it was a struggle to keep going,” Elizabeth explains. “The high-lives of celebrated artists as featured in the mainstream media are not indicative. Most have a tough time, living precariously, working very hard without affirmation. There are lots of dark days – but there is a certain freedom of the imagination too, which I felt another life, or profession, could not enable. So I kept at it.”

At the same time, Elizabeth makes it clear that scholarships also enabled her to develop her career as an artist, and that cuts in arts funding will prevent others from doing the same. “Cuts in funding to museums and galleries will diminish access to contemporary art and



SINCE 1984 THE TURNER PRIZE HAS BEEN AWARDED TO A BRITISH VISUAL ARTIST UNDER THE AGE OF 50 FOR AN OUTSTANDING PIECE OF ART THAT YEAR. LEEDS HAS PREVIOUS CONNECTIONS WITH THE PRIZE: SCULPTOR ANISH KAPOOR WON THE PRIZE IN 1991 AND WAS AWARDED AN HONORARY DLITT FROM THE UNIVERSITY IN 1993

limit opportunities for younger and emerging artists in particular.” As a result, she says, there’s a danger art will become “reflective of only a narrow range of social experience.”

Elizabeth intends for her art to be engaging and accessible. “I think of my art as public art. Everything in my films is ‘found’ (I always use existing objects, footage and photographs), and so this is stuff we have in common. It is part of our collective inheritance, whether we like it or not.”

It’s a fitting sentiment, considering that Elizabeth effectively created a community from those affected by the Woolworths fire. “My interest is in collective memory and imagination and I wanted to make a commemoration. My intention in the edit was to bring the witnesses together as a powerful collective voice to tell us, remind us, about that event.”

Since graduating, Elizabeth has returned to campus both as visiting lecturer and an external examiner. As an artist she still personally treasures Leeds: “I love much of the architecture of the University, particularly the bold, brutalist shapes of the [Roger] Stevens Building and the big, optimistic spaces to gather. It is an invigorating habitat. I come back to the Department from time to time, and have lots of family in and around Leeds too, so I’m in the neighbourhood quite often.”

Leeds Art Gallery is hoping to show Elizabeth’s work at some point in the future, and there’s no doubt that the city would welcome her reappearance, this time as a prize-winning artist and champion of the North. That may not happen any time soon, though, with Elizabeth’s busy schedule.

She often continues to edit and adds to an artwork up to a year after original completion, as she did between the original showing of *The Woolworths Choir of 1979* at BALTIC in Gateshead and its installation at Tate Britain.

Shortly before winning the Turner Prize money, Elizabeth secured a fellowship at Rutherford Appleton Laboratory’s space unit, where she is the first Artist in Residence. “At the



▲ **“I DIDN’T EXPECT TO BE NOMINATED...IT WILL MAKE A BIG DIFFERENCE TO MY CAREER I THINK”**

**CREDIT:**  
LUCY DAWKINS, TATE  
PHOTOGRAPHY

◀ **CREDIT:**  
LUCY DAWKINS, TATE  
PHOTOGRAPHY

moment I’m assembling a complete chronology of technical images of the sun,” she explains, “from plate photography in the late 19th century to contemporary HD video taken from stereo satellite.” She plans to integrate them within another film that has still to “unfold.”

“I’m doing the same thing as ever really,” she says modestly, “but perhaps with more choices and more security – which makes life happier, for sure.” — (L)





# CHANGING THE LANDSCAPE

LANDSCAPE DESIGNERS JAMES FOX AND STEVE WALKER TRY NOT TO LEAVE THEIR MARK

BY IAN BEETLESTONE

Lucky enough to be ambling around the gardens at Kensington Palace on the only warmish, sunny day in early March, and as a first-time visitor to the grounds, you might think it had forever been like this.

Walking up the Broadwalk – the great path that leads from Kensington Road in the south to Bayswater Road in the north, with the palace and its gardens to the west and the Round Pond, Kensington Gardens and, ultimately, Hyde Park itself to the east – you come to the gleaming marble statue of a young Queen Victoria set in a small octagonal pond, behind which topiary-lined paths lead down through crisp lawns and understated planting, drawing you to the baroque loveliness of the palace itself.

The whole scene is imbued with a regal, timeless quality which belies the fact that it was only recently the site of an intensive £1.2 million redesign at the hands of Todd Longstaffe-Gowan Landscape Design, whose purpose was to re-establish the very connection with the landscape that appears, now, so obvious and eternal. The newly refurbished palace and gardens were in fact only opened by the Queen in March last year.

Two Leeds alumni work with Longstaffe-Gowan and, a couple of weeks after my jaunt, I meet James Fox (Philosophy 1997) and Steve Walker (Geography 2000) at Landscape Design's Smithfield office to talk to them about, among other things, Kensington Palace, their other work and Leeds.

James joined the office in 2006, Steve later on in 2011, after a spell with LDA Design. It was actually at postgraduate study at Sheffield that they met and trained in landscape architecture, but I wonder – despite the difference in undergraduate studies – did their time at Leeds have an impact on their future choice of career?

Steve's Geography degree "definitely made me appreciate the social and environmental things," he says, "as well as just a good design aesthetic and how things look." In his previous job at LDA Steve worked on the Olympic Park in Stratford in which sustainable

practices were crucial: "that was a really good project on all things sustainable – a completely polluted site, contaminated land, parkland, meadows, wetland... new drainage... all the rain that comes down gets taken by swales into wet woodlands where it gets cleaned by the trees, then it goes into frog ponds."

Sustainable practices are also important in an ambitious new cutting-edge eco-village on the edge of Taipei, near Taiwan's version of Silicon Valley. Work on a small garden in North London with Gianni Botsford Architects led to Landscape Design being brought on board the mountainside scheme, along with Botsford and Mole Architects.

The master plan for Hsinchu Stone Village draws heavily on traditional materials, planting and features – basing modern blocks around a take on traditional communal spaces, for example, and using clean-lined, contemporary water features as a reference to traditional ponds. The project uses modern drainage techniques and the storage of rainwater, along with locally quarried stone and renewable energy sources.

Crucially, just as the work at Kensington Palace was about looking at the existing fabric and responding appropriately, so the Hsinchu Village work is all about finding a 21st century expression of the traditional architecture and design of a Taiwanese hillside community. "At Kensington Palace," says James, "we looked at the character of the landscape and we drew our plans from that character. It's a very traditional design. At Hsinchu we looked at the indigenous character of the landscape and architecture and we're making it contemporary. But it's basically the same process."

The previous incarnation of Kensington Palace's gardens had lost its vital connection with the wider grounds and park, with security fences barring access except at obscure, confusingly signposted gates, and tree-planting obscuring vistas in and out of the palace.

The famous statue of Queen Victoria, sculpted by her daughter



▲ IMAGE: SKETCH FOR ECO-VILLAGE IN TAIPEI

◀ PHOTO: JET-SETTING GARDENERS JAMES FOX, LEFT, AND STEVE WALKER, RIGHT, SCOPE OUT A SITE IN TAIWAN WITH THEIR COLLEAGUE.

**THE HSINCHU VILLAGE WORK IS ALL ABOUT FINDING A 21<sup>ST</sup> CENTURY EXPRESSION OF THE TRADITIONAL ARCHITECTURE AND DESIGN OF A TAIWANESE HILLSIDE COMMUNITY.**





THE TIMELESS GARDENS AT KENSINGTON PALACE HAVE ONLY RECENTLY BEEN THE SITE OF AN INTENSIVE REDESIGN



Princess Louise in 1890, had ended up marooned on a nondescript piece of lawn, hemmed in with fencing. Now it is restored as a focus of the palace approach, the fulcrum around which the visitor's view of the palace gathers. The objective of the Landscape Design approach was, in this way, to reconnect the palace with its surrounding landscape. They chopped down superfluous trees that blocked views and complicated the plan, removed fences, opened up sightlines and installed pathways as continuations of routes throughout Hyde Park.

They also added some playful touches, like a wiggly path through hornbeam planting (which as well as being fun, serves as wheelchair access) leading from the café at the palace towards the Orangery and they've taken a bold, geometric approach to the topiary that lines the paths from the Broadwalk.

This concept of reasserting the position of the palace gardens into the wider landscape around them is critical to the way that Landscape Design operates. As far as James and Steve (and, indeed, Todd) are concerned, context is a key to landscape design.

The importance of context follows through to the way they see Chelsea Flower Show. The University of Leeds won a gold medal at Chelsea last year (see sidebar). What do they think about Chelsea and did they notice the University's gold? Straight away James talks about how Chelsea gardeners respond to the show's context. His slight beef with the show is that many entrants ignore the constraints of Chelsea's small plot and hedged-in setting and just install a temporary "garden from Mars."

Steve argues that there are two types of Chelsea entry – those which are egotistical and look like they've just been "dropped from the sky and landed there" but also those that serve more of a purpose, that educate and promote sustainability and provide, as Leeds did, "a really good example of a garden that's demonstrating what normal people can do in their homes." They agree that the University's entry was perfect for Chelsea in that it responded to its small-plot context by creating a realistic, workable garden for a small plot – that of the quintessential northern garden.

▲ PHOTO: USING TRADITIONAL TIERS AS A BASE FOR LANDSCAPING

James and Steve have no current plans to enter a Chelsea garden themselves. They do, however, have plenty of other projects on the go. A lot of Steve's current working day is spent on a large conference centre and hotel site in Berkshire. At Heckfield Place he is designing a landscape that progresses from individual gardens accessed from the rooms to a larger communal estate, to views from the hotel grounds out to the wider countryside. It's another large-scale project involving some pretty hefty practical challenges like removing huge piles of earth to establish the right level for the gardens.

James, meanwhile, has just set up his own practice, Fox Fernley Landscape Office, with partner Claire Fernley. They recently won the Paredes International Furniture Competition for a delightful – and delighting – chair up a ladder called "a point of perspective." On top of his work with Longstaffe-Gowan Landscape Design, mainly taken up with Hsinchu, he also lectures for the universities of Greenwich and New York, the latter at its London base.

## A REALLY GOOD EXAMPLE OF A GARDEN THAT'S DEMONSTRATING WHAT NORMAL PEOPLE CAN DO IN THEIR HOMES

James draws a strong link between his Philosophy degree and landscape design. "Philosophy is about how to be rational and how to keep your eyes open... philosophy is the art of distance, and design is the art of



THE MASTER PLAN FOR HSINCHU STONE VILLAGE DRAWS HEAVILY ON TRADITIONAL MATERIALS, PLANTING AND FEATURES

distance as well. To try and make the best decisions in a design process you need that distance," he says. "Philosophy is still a much more powerful thing in my decision-making than my design education."

So is James a landscape philosopher then? "Not at all." But philosophy does creep into the design process at the point when, James says, "I'm starting to get excited. At this moment I need to step back and say 'Is it actually a good idea?' You've always got to be somehow able to tear yourself away from a design and look at it as an abstract question – is it right or not? – and that's what philosophy's really good for. In that sense philosophy and design are incredibly close."

My landscape philosopher quip is not as daft as it may appear. In this profession there is a surprising



## I THINK IT'S NOT BAD IF I PLANT, DURING MY CAREER, A THOUSAND TREES. IF I HAVE A FOREST'S WORTH OF TREES AT THE END OF MY CAREER, I'VE NOT DONE AS WELL AS A DOCTOR, BUT I'VE NOT DONE TOO BADLY EITHER

amount of debate about job titles. Longstaffe-Gowan has been known to refer to himself simply as a gardener – which is disingenuous to say the least – and there are different camps of 'landscape' or 'garden' 'designers' or 'architects.' Depending who you ask, the alternative terms are varyingly "ghastly," "conservative" or "pompous," so perhaps it's useful to remain philosophical about it all.

Whatever their titles, Steve and James both take the long view of their work, which likely becomes a natural approach when dealing with plant

growth. "There's the question of what you believe in," says James. "I think it's not bad if I plant, during my career, a thousand trees. If I have a forest's worth of trees at the end of my career, I've not done as well as a doctor, but I've not done too badly either."

Steve concurs: "As a summing up comment about what drives us, that's probably a pretty good one." — (L)

▲ PHOTO: ORDER RESTORED TO KENSINGTON PALACE GARDENS

CREDIT: JOHNNY GREEN

## LEEDS WINS AT THE CHELSEA FLOWER SHOW

The University won a gold medal at last year's Chelsea Flower Show for its "Gardening for Champions" exhibit, which emulated a "typical northern garden." Designed by Martin Walker, it was based on research into sustainable practices done at the University.

The garden included permeable paths, water butts and green roofs to slow the flow of water and help it absorb into the ground. Longer grass and wild-style flowers, along with sandy soil and rotting logs were used as methods of attracting bees and other insects into the garden. Not used were double-buds, garden-centre favourites, which are high on flowers but low on pollen. Meanwhile composting, the planting of vegetables and fruit, and the eschewing of artificial fertilisers helped create a carbon sink. The garden even included a "bee-vision" camera to allow visitors to see the garden from the perspective of the insects.

Dr Rebecca Slack at Leeds' Faculty of Environment said: "It is estimated that gardens take up between 20 and 35 per cent of space in urban areas, so if we can help gardeners to make a few simple changes, it will improve the environment for millions of people in the UK. We are absolutely delighted to have come away from our first experience of Chelsea with a medal. It's a real accolade for the whole team, but more importantly it's a great way to draw attention to the science behind the garden."





# IS IT REALLY POSSIBLE TO GET MAJOR CITIES TO SIGNIFICANTLY CUT THEIR CARBON FOOTPRINT?

WORK AT LEEDS SHOWS THERE IS A WAY **BY VICKY ELLIS**

A symbol of civilisation throughout the 20th century and into the current one, more than half of the world's population already lives in a town or a city, and that number is predicted to rise to two-thirds by 2030.

If this is progress then there's a catch: 21st century urban living frequently demands massive quantities of electricity which at the moment, in most countries, is mainly generated with fossil fuels. There's global scientific consensus that overusing oil, coal and gas is leading to climate change. But changing our ways in response seems like a monumental task. This is where Leeds comes in.

A couple of years ago, Andy Gouldson, Professor of Sustainability Research, was approached by Leeds City Council. With a target of cutting 40 per cent of its emissions by 2020, the Council needed strong evidence on the economic basis for such a carbon cut, and so they asked him to carry out what's become known as a mini-

▲ **PHOTO:** MAN WITH A VISION: ANDY GOULDSON, PROFESSOR OF SUSTAINABILITY RESEARCH AT LEEDS

“ IF WE DON'T DO ANYTHING ABOUT CLIMATE CHANGE IT WILL COST US BETWEEN 5 AND 20 PER CENT OF GDP. IN OTHER WORDS, IT'S MUCH CHEAPER TO DO SOMETHING THAN TO IGNORE IT ”

Stern Review for the city.

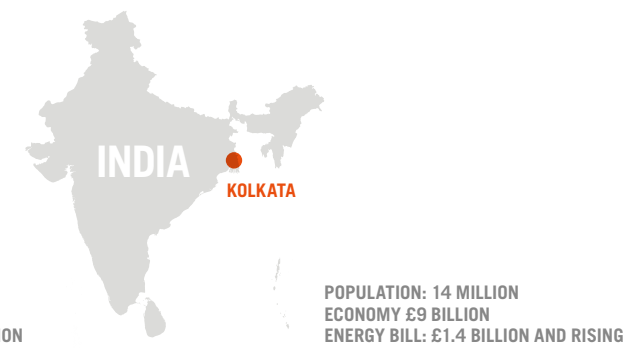
As Andy explains: “The Stern Review on the Economics of Climate Change in 2006 was instrumental in getting governments to support action on climate change. The headline finding was that if we don't do anything about climate change it will cost us between 5 and 20 per cent of GDP, but that avoiding it will cost the world between 1 and 2 per cent of GDP. In other words, it's much cheaper to do something than to ignore it.”

Andy was originally hesitant to see if that economic case also applied in the Leeds City Region: “To answer this question at the level of a city or city region meant developing a whole new approach in a relatively short period of time – and I wasn't sure whether or how it could be done in a robust way,” he says. But Andy and his team rose to the challenge, finding a way and crunching the numbers, beginning what he believes was the

first analysis of this detail anywhere in the world.

By assessing the impacts of thousands of everyday activities – like driving to the shops or using a photocopier – they worked out how much carbon could be cut by switching to more efficient appliances, changing behaviour or installing renewables. Building up a picture of how the city could transform itself into a low-carbon economy and society, the team's figures showed that the Leeds City Region (including nearby centres like Halifax and Bradford) could cut its emissions by around 19 per cent by 2022. Taking into account wider factors like national initiatives to decarbonise electricity, the mini-Stern report found the Leeds City Region could emit 42 per cent less carbon by 2022.

That result would come with a hefty price tag of £13 billion – but crucially it would save £1.7 billion



a year through reduced energy bills, meaning it could earn back that big sum in seven and a half years, in the process stimulating the economy and helping to tackle poverty. Another eye-catching benefit was that this level of investment would create nearly 2,000 new local jobs. With the region's energy bill totting up to £5.4 billion a year – potentially rising to more than £7 billion in a decade, according to the report – many of the savings laid out by the University's team made too much economic sense to be ignored.

The research has led to practical impacts. As Tom Knowland, Head of Sustainability for Leeds City Council explains, the mini-Stern Review made his job much easier. “We can now say for definite that addressing climate change is about sensible economic investment.” He says that for Leeds, going green isn't as easy as other places: “It's not terrifically windy or by the sea.” That rules out large-scale renewable energy like wind or wave power, forcing the city to look at less well-known alternatives. What the report has done, Tom says, is “open the door to that discussion rather than people dismissing it as a low-carbon fantasy.”

The mini-Stern Review hasn't just set an example for cities in the UK. While Andy has led subsequent research for Sheffield, the Humber region and Birmingham, it is also inspiring city leaders around the world. In 2011, the team launched its research programme at an official side event of the UN's climate change summit in Durban. “We got a really good reaction,” Andy says. “It was voted one of the most transformative ideas to be presented. People said it was nice to have a positive story to tell, when international negotiations are so complicated and the progress is rather glacial.”

That positive message brought Leeds attention from far and wide and significantly from Kolkata in India. Following collaborations with state and city governments, and with local partners and stakeholders, Leeds is



about to release another mini-Stern Review for the growing city of more than 14 million people.

“It's a megacity, big and bustling,” says Andy, “large parts of it are very poor, it's kind of chaotic to a Westerner.” Kolkata is growing quickly, its economy expanding at a rate of 7 per cent every year – which means it will double in size every 10 years. “Much of the future city isn't built yet. So if they're going to spend huge amounts of money on new infrastructure, why not spend it smartly?”

The challenge posed in Kolkata is different to that of British cities, particularly as many of its power stations are coal-fired. “The energy consumed is much higher carbon than in the UK: more polluting generally, but they pay less for it and use much less of it.” Poverty levels are much higher too. In Kolkata, “Twenty per cent of the population are the urban poor,” says Andy. “You've got to make sure the changes help them, and that they certainly don't disempower them or

▲ **PHOTO:** DAILY LIFE AND RUSH TRAFFIC AT MIRZA GHALIB STREET IN THE CENTRE OF KOLKATA.

“ MUCH OF THE FUTURE CITY ISN'T BUILT YET. SO IF THEY'RE GOING TO SPEND HUGE AMOUNTS OF MONEY ON NEW INFRASTRUCTURE, WHY NOT SPEND IT SMARTLY? ”

## LEEDS VS KOLKATA: HOW DO THEY COMPARE?

The Leeds City Region has a population of 3 million, an economy of £52 billion and spends £5.4 billion on energy bills a year. Kolkata by contrast has a population of around 14 million, and an economy worth roughly £9 billion. Although they can't be certain until the final calculations are dusted off, the Leeds team estimates Kolkata's annual energy bill in 2012 was £1.4 billion – but at current rates it will increase to £10 billion by 2025 (these are provisional figures). But Kolkata's economy is growing at a rate of 7 per cent every year and so should double in size over the next decade – which could mean even bigger bills and also much higher carbon emissions in future.

City leaders in both contexts want to promote greener and lower carbon forms of growth – and the cities work helps them to do that whilst also pointing out the limits of green growth and the need for the changes that can be made now to be compatible with more ambitious plans for much lower carbon and more broadly sustainable development.

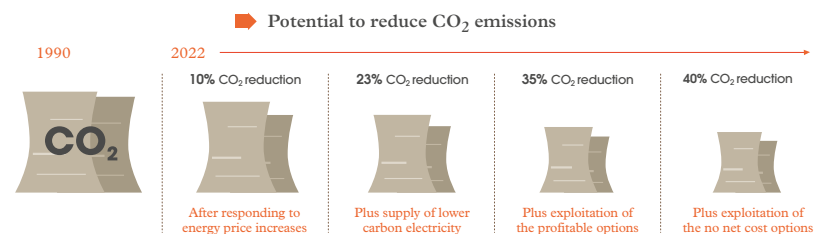
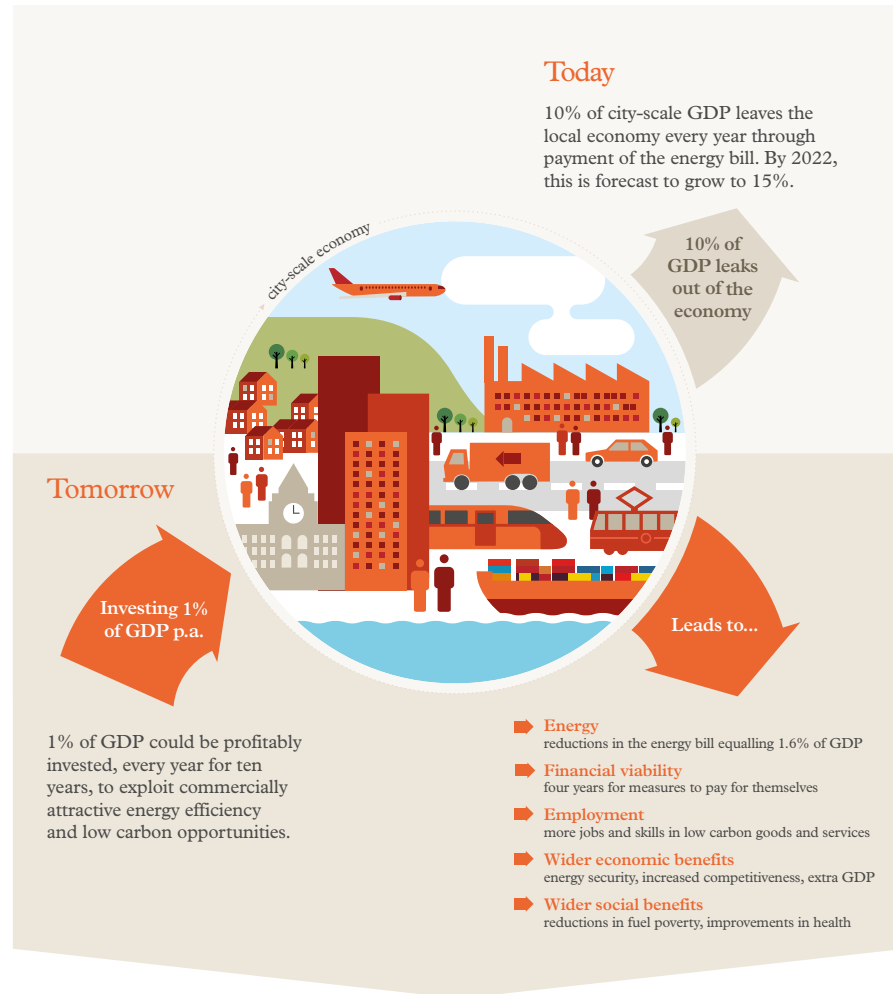


make them poorer.”

There’s clearly a will in the city to begin to change things though, and the Leeds team has worked with the West Bengal Government and organisations like the Confederation of Indian Industry. “We’ve worked hard to make sure this isn’t a study that is parachuted in with no local support,” says Andy. The study will end with the development of an outline financing and implementation plan to help turn the findings into reality.

The full study is under wraps until the Leeds team complete it. What could have an impact – and it’s just an idea for right now, says Andy – is building lots of small, relatively low-tech housing units with electricity, running water and sanitation, similar to those promoted in South Africa by Nelson Mandela. “If you could design one for the three million slum dwellers in Kolkata and gradually enable it to be adopted, that would have a huge impact on quality of life, well-being and help them to develop, but in a relatively low-carbon way.”

Elsewhere, Andy has also worked with Chinese officials who are drafting the next Five-Year Plan, a new chapter of China’s famed economic strategy. Partly because of the work on low green growth in Chinese cities, the next Five-Year Plan includes targets for green growth. The Leeds approach has caught the eye of officials from Peru’s capital city Lima too. “We’ve had loads of queries from different cities to say, ‘Can you do this for us?’ One question we were asked after Durban was, ‘So you’ve done it in the UK, is it as relevant in a developing country?’ That’s why we’re doing it in Kolkata. We’ve funded it ourselves to begin with in the hope that we can prove its value. Now we’re looking for a sponsor to say, ‘Do it in another 10 cities.’ If you did it for a few other high profile cities we could really prove it is possible. We could really get things moving.” — (L)



▲ **IMAGE: THE ECONOMIC CASE FOR INVESTMENT IN LOWERING A CITY'S CARBON FOOTPRINT**

# THE FOOTSTEPS FUND

**Ambitions in law > Alumni scholarship > Legal Advice Clinic volunteering > Helping the next generation**

When Sammie heard that she had been accepted to study Law at Leeds, it was the first step towards fulfilling a dream. In addition to working hard, she needed the support of alumni to achieve it.

Sammie’s £1,000 a year scholarship, provided by the Footsteps Fund, has given her the support she needs to be able to make a difference - from volunteering in the Leeds Legal Advice Clinic and giving free legal advice to members of the community, to going into schools to encourage students from low-income backgrounds to come to university.

On top of all this, with the help of her Footsteps Fund scholarship Sammie’s been able to purchase the materials she needs to keep on top of her studies and achieve incredible grades so far.

**Just 25 gifts of £40 to the Footsteps Fund will provide a whole year’s scholarship for another student like Sammie. Please give today, and help another student follow in her footsteps.**

**Send back a donation with the ‘Update Your Details’ form with this magazine.**

**Alternatively, give online at [leeds.ac.uk/makeyourgift](https://leeds.ac.uk/makeyourgift)**

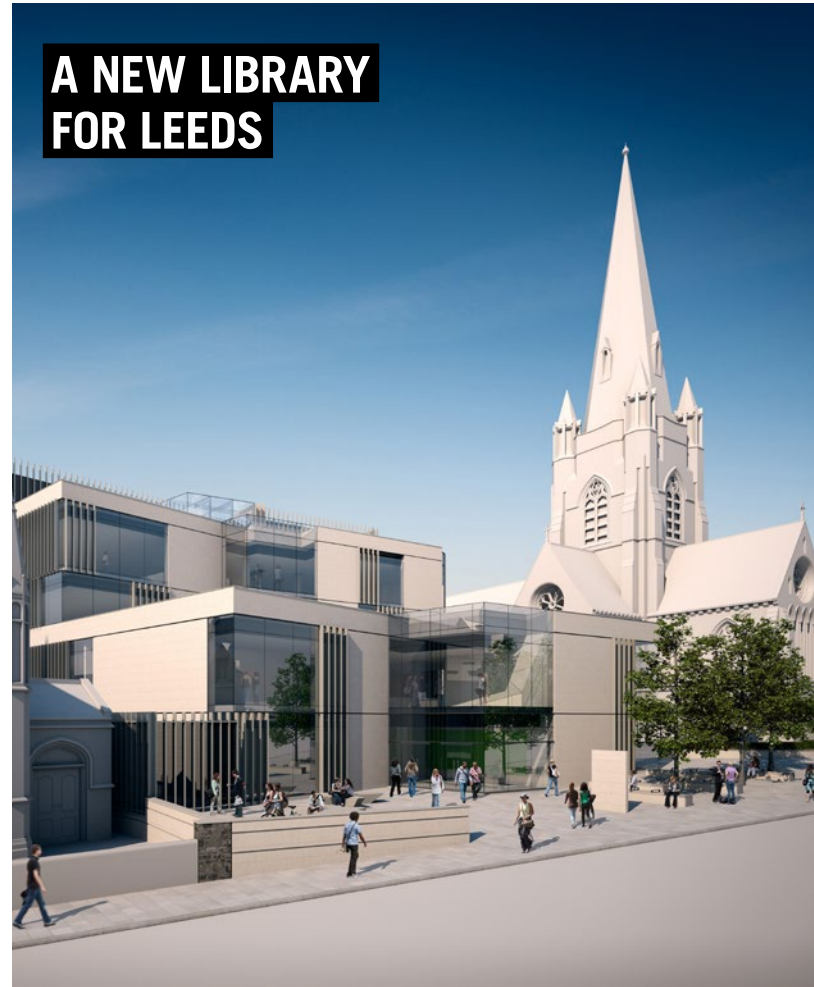
**or text ‘STEP05 £3’, ‘STEP05 £5’ or ‘STEP05 £10’ to 70070.**

(Texts are charged at your carrier’s rate, in addition to your donation, and you must have the permission of the person who pays the bill in order to text. Text donations are handled by Justgiving in partnership with Vodafone so that 100% of your donation is received by the Footsteps Fund)





# THE LATEST FROM LEEDS



## A NEW LIBRARY FOR LEEDS

Work starts in July on the University's new library, which will open its doors to students in 2015.

The landmark building, on the main approach to campus from the city centre, will have entrances on Woodhouse Lane and Hillary Place. It has been designed to complement its surroundings, incorporating a Portland stone finish that echoes the iconic Parkinson Building nearby.

The four-storey building will be packed with the texts central to the first two years of undergraduate study. Over 1,000 new individual study spaces will give users access to online materials through the mobile devices many use as an integral part of their work, and flexible group study spaces will enable students to work together on joint assignments and presentations.

The community classroom will host outreach work with local schools and colleges, encouraging talented young people from disadvantaged backgrounds to aim high. A café and courtyard will encourage its use as a social centre; artwork from our gallery and collections will be put on public display and picture windows will afford a panoramic view south across the city.

"It will provide our students with a state-of-the-art, high-quality study environment," says University Librarian Stella Butler. "Students and staff are tremendously excited about the new building and we are all really looking forward to seeing it take shape."



▲ PHOTO: CLAD LIKE THE PARKINSON BUILDING IN PORTLAND STONE, THE NEW LIBRARY WILL FACE ONTO WOODHOUSE LANE

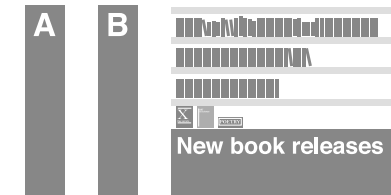
## RED BRICK REVISITED

The rich architectural heritage of the University of Leeds is explored in a new edition of a classic walking guide to its campus.

Walks Round Red Brick by the late Professor Maurice Beresford has established itself as the definitive

source on the University's buildings and open spaces since it was published in 1980.

The new edition overseen by Dr Chris Hammond, Life Fellow in Material Science at Leeds, brings Beresford's classic up to date, adding revised histories and notes on the latest additions to the University's architecture. "Professor Beresford wanted to remind members of the University that they were surrounded



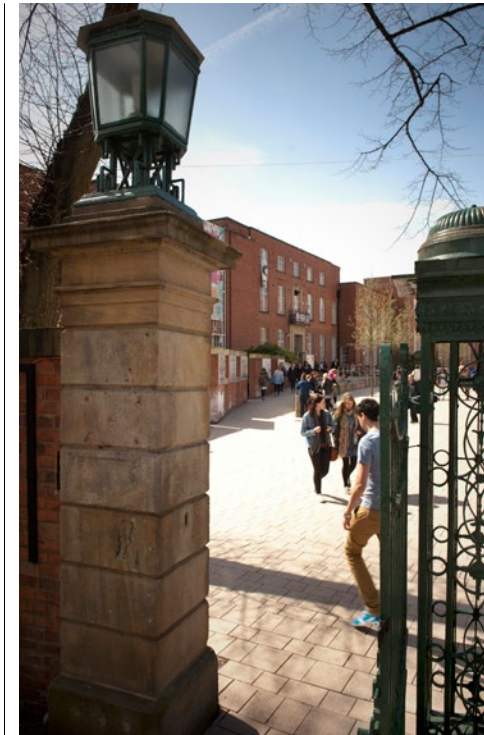
OVER 1,000 NEW INDIVIDUAL STUDY SPACES WILL GIVE USERS ACCESS TO ONLINE MATERIALS THROUGH THE MOBILE DEVICES

in their daily work by a 'free open-air museum of architectural and social history,' and I think that holds as true today as it ever did," says Chris. "You go from the domestic scale of the terraces and the Leeds University Union to Chancellor's Court and the Roger Stevens Building, to the Parkinson Building – from the intimate to the grand to the iconic – in a few minutes' walk."

Copies can be obtained at a discounted price for Leeds alumni from Jeremy Mills Publishing at [www.jeremymillspublishing.co.uk/bookshop](http://www.jeremymillspublishing.co.uk/bookshop) or [sales@jeremymillspublishing.co.uk](mailto:sales@jeremymillspublishing.co.uk).

▶ PHOTO: UNIVERSITY ROAD AND LUU BUILDING

▶ PHOTO: THE GREAT HALL, THE HEART OF THE UNIVERSITY'S HISTORIC 'RED-BRICK' AREA



## OPEN DAYS

On 14th September and 12th October we are holding Undergraduate Open Days, giving you the perfect opportunity to visit Leeds. Do you know anyone considering applying to Leeds this year? Open Days give visitors the ideal opportunity to explore our campus, meet with staff and current students, and find out more about the courses we offer. All our academic departments will be open, with a full programme of talks, demonstrations and taster lectures, alongside tours of the Students' Union, some on-campus accommodation and our sports centre. As a member of our alumni community, you are invited to join us in the 1913 Room for drinks and cakes, and a space to relax. If you're interested in sharing your experiences as a Leeds graduate with prospective students at the Open Day, please let us know too! To attend an Open Day, book at [www.leeds.ac.uk/pendays](http://www.leeds.ac.uk/pendays).



THANK YOU

1,300

MORE THAN 1,300 NEW DONORS TO THE FOOTSTEPS FUND THIS YEAR

4,700

MORE THAN 4,700 ALUMNI CURRENTLY DONATING TO THE FOOTSTEPS FUND

£600,000

HAVE HELPED RAISE NEARLY £600,000 FOR THE FOOTSTEPS FUND SO FAR THIS YEAR

OFF CAMPUS



PHOTO: LUHKAA ANNUAL DINNER

Leeds University Hong Kong Alumni Association held its Annual Dinner in November. More than 80 alumni attended the event at Hong Kong Football Club, along with Deputy Vice-Chancellor Professor John Fisher and Director of Development Michelle Calvert. [www.alumni.leeds.ac.uk/hongkong](http://www.alumni.leeds.ac.uk/hongkong)

Leeds University Old Students Association (LUOSA) London Branch has been organising alumni activity for 100 years. The Association celebrated its centenary with a party at Glaziers' Hall in London. The Vice-Chancellor, Professor Michael Arthur, and Phil Steel, Head of Alumni Relations, met with more than 60 alumni. [www.alumni.leeds.ac.uk/luosa](http://www.alumni.leeds.ac.uk/luosa)

More than 2,000 people have already attended a Leeds Alumni event this year. From pub quizzes to professional networking events, formal receptions to informal get-togethers, alumni events have taken place in Leeds, Accra, Cape Town, Dubai, Hong Kong, Kuala Lumpur, Laos, London, Manchester, New Delhi, New York, Shanghai, Singapore, Seoul and Tokyo. To make sure you don't miss out on your invitation, keep your details up to date at [www.alumni.leeds.ac.uk](http://www.alumni.leeds.ac.uk)

For forthcoming events see p32

CLOTHWORKERS' GRANT WILL CREATE FABRICS OF THE FUTURE

A £1.75 million grant from the Clothworkers' Foundation is enabling the development of new healthcare products which will benefit millions of people. The grant is funding new research equipment, postgraduate students, a research fellow – and a new Professor to help drive this vital research.

The University is already renowned for its work in this area, but the appointment of Chris Carr represents a significant new addition to the team working in The Clothworkers' Centre for Textile Materials Innovation for Healthcare. He has moved from the University of Manchester where he was Professor of Textile Science and Technology.

Textiles has been a key feature of the University since its earliest days – and the grant continues a tradition of support for Leeds from the Clothworkers' Company which stretches back to Victorian times.

Robin Booth, Master of the Clothworkers' Company said: "We are delighted to be able to make this grant to the University. The University of Leeds is the UK leader in academic research and teaching of textiles, and the establishment of the new Centre builds on this strength."

As we reported in the last edition of *Leeds*, our research into nonwoven textiles is meeting major medical needs – from new blood filters to products to fight healthcare-associated infections. The close working relationship with colleagues in medicine and healthcare gives Leeds a serious head-start in developing the right textile products and bringing them to market. "What really excites me is that there is this two-way flow of information,"



PHOTO: CHRIS CARR, PROFESSOR OF TEXTILE TECHNOLOGY

Professor Carr explains. "Clinicians here work with patients on a daily basis and can tell us exactly what patients need – what works and what doesn't."

Welcoming Professor Carr to Leeds, Stephen Russell, Professor of Textile Materials and Technology, said: "I've known Chris for some time and it is quite a coup to be able to bring him here."

A LEGACY OF SUPPORT

Hilary Spurrier (History 1972) knows well the importance of a university education. Her legacy will ensure that young people from disadvantaged homes can feel that benefit, long into the future. "I'd never really been north before," says Hilary, looking back on her decision to head up the newly-completed M1 from Northampton to start life as a student in Leeds.

"I'd heard good things about Leeds, and the history course sounded like one I would enjoy. And I liked the fact that the University was at the heart of the city."



PHOTO: JOHN PRIESTLEY, THE 10,000TH DONOR TO LEEDS' FOOTSTEPS FUND

This was 1969 – Jack Straw was Union President; Fleetwood Mac, Led Zeppelin and Pink Floyd were playing in the Refectory and Don Revie's Leeds United were league champions. "They were excellent times; it was a really lively place to be a student."

Now "easing towards retirement," Hilary's thoughts have turned to how she can help others – both now and after her death. She already sponsors two students, and her legacy will provide support for many more: "We had no children and I don't have relatives who are dependent on my support. So I thought about the most formative times of my life – and one of those was Leeds."

Her time as a student volunteer in the inner-city, her career in schools and with families – and a

stint working in Sierra Leone – have instilled in Hilary a strong sense of the transformative power of education. "I am very lucky and have had some wonderful experiences. I'd like to help students who have ability but not the resources to enjoy some of those opportunities."

"Through my life in education I have seen the much bigger hill which these kids have to climb to get to university. Hopefully my support can make a difference."



PHOTO: HILARY SPURRIER (LEFT), PICTURED AT THE LEEDS ALUMNI OLYMPICS EVENT LAST YEAR

FOOTSTEPS FUND RECEIVES ITS 10,000TH DONATION

John Priestley (Law 1964), became the 10,000th donor to our Footsteps Fund, which helps support students coming to Leeds, and provides opportunities while they are studying. John, a retired solicitor from Otley, gave his gift as he reached his 70th birthday.

John's education at Leeds helped him to follow in his father's footsteps to become a solicitor. Both his sons have become solicitors as well.

He says: "Young people today have to pay so much in order to get a degree whereas I was able to go to university for free. I just wanted to be able to give a little something back to help the students of today."

The Footsteps Fund has raised more than £3 million for scholarships and student projects since it was created eight years ago.

GETTING A CLOSE-UP VIEW

Donor Michael Beverley (Economics and Politics 1973) was on campus this spring to see the Super Resolution Light Microscope which his donation enabled the University to build.

The microscope, one of just a handful of its kind in British universities, allows scientists to examine in previously-unimagined detail the structure and function of human proteins. Understanding these could be key to creating new treatments for a range of diseases and conditions.

Michelle Peckham, Professor of Cell Biology, explains: "It allows us to create detailed images of structures smaller than 200 nanometres (two 10,000ths of a millimetre) across, and there are things you can do in a light microscope that you can't do in an electron microscope. If we're using live cells, we need to be looking at them through a light microscope."

Research teams working in dementia, heart disease and kidney disease, and those examining how viruses replicate, are already benefiting. It has also led directly to Leeds winning a £1.4 million grant from the Medical Research Council to develop a second type of super-resolution microscope and further strengthen our work in this area.





**SIR ALAN LANGLANDS**  
THE NEW VC LANDS IN LEEDS

**OUR INCOMING VC TALKS ABOUT HIS CAREER SO FAR — AND HIS EXCITEMENT AT THE NEW ROLE**

“It was a case of getting down and dirty,” says Sir Alan, recalling spells as a porter and nursing assistant in a hospital in 1974.

One of just nine recruits to Scotland’s exclusive graduate training programme for National Health Service management, Alan had to pitch in at the sharp end of healthcare. “It was a fast-track scheme but very much grounded in reality.”

It was also the launch pad for his meteoric rise through the biggest public sector organisation in Europe. By 1994 he was NHS Chief Executive – leading at 41 an organisation with a million employees and a £45 billion budget.

He first came to Leeds in 1994. “There was a drive to decentralise Government departments and I led the move to Quarry House. At a meeting to announce the plans, someone asked if I’d be going to Leeds too – and instinctively I said yes. I then had to go home and tell my family!”

His instincts were sound. They moved north, bought a house just outside the city – and stayed. “After the election in 1997, Tony Blair said he wanted me based in London, so I did a weekly commute for a while.”

Seven years into this most public of public sector jobs, Sir Alan was ready to move on. “There were just two bigger public organisations anywhere in the world – the Red Army and the Indian railways. After something like that, the question is ‘What next?’”

The answer was to do something quite different, and Sir Alan returned to Scotland as Principal and Vice-Chancellor of the University of Dundee. “Some people were surprised, but those who really knew me understood – I’ve always been passionate about higher education and biomedical research.

“In the health service I was closely associated with medical schools and helped develop the reproductive biology centre at the Royal Infirmary in Edinburgh. I led the merger of University College and Middlesex hospitals and their medical schools.” He jokes that outgoing VC Michael Arthur should thank him for the huge strength of the biomedical sciences he will inherit at UCL. And he was a pioneer, giving research a central role in the Department of Health.

Sir Alan has held other key roles: Chair of UK Biobank, responsible for one of the world’s biggest genetic epidemiology studies; Chair of the Health Foundation; honorary Professor at Warwick Business School. He spent more than four years leading the Higher Education Funding Council for England which funds and regulates

**CAREER HIGHLIGHTS FROM OCTOBER 2013:**  
VICE-CHANCELLOR,  
UNIVERSITY OF LEEDS

**2009 – 2013:**  
CHIEF EXECUTIVE,  
HIGHER EDUCATION  
FUNDING COUNCIL FOR  
ENGLAND (HEFCE)

**2000 – 2009:**  
VICE-CHANCELLOR,  
UNIVERSITY OF DUNDEE

**1994 – 2000:**  
CHIEF EXECUTIVE, NHS  
IN ENGLAND



LEEDS IS WELL POSITIONED; IT HAS A STRONG HERITAGE, EXCELLENT VALUES AND TREMENDOUS OPPORTUNITIES TO BUILD FOR THE FUTURE



universities. And as someone with his finger on the pulse of higher education finances, Sir Alan is confident of a positive future for Leeds amid the seismic shift from grant funding to higher tuition fees.

“Leeds is well positioned; it has a strong heritage, excellent values and tremendous opportunities to build for the future. I hope to play a strong role in boosting the University’s academic and research achievements and extending its economic, social and cultural influences.”

A key ingredient is the alumni body, and it turns out he already knows the figures: “200,000 former students in 190 countries. It’s quite remarkable, and I’m really looking forward to meeting as many as possible in the coming years.

“I’d like all students to feel that this is their University, one to which they will always have a connection.” He has reconnected with his old university: “When I returned to Scotland I visited the University of Glasgow, and their vice-chancellor made a point of introducing me to the alumni relations team. Apparently they’d been trying to contact me for a while!” The award of an honorary degree during the celebrations for Glasgow’s 550th anniversary in 2001 closed that particular circle. “It was a very proud moment,” he says.

His Knighthood was another, and came on the 50th anniversary of the NHS in 1998. “It’s an institution that I believe in with passion. The Knighthood didn’t just recognise me, but all the people who put their life and soul into the NHS.”

Asked about interests away from work, he laughs: “My wife Elizabeth would say I’m always working. But I enjoy music and walking in the Dales, Scotland and Cornwall.”

“I’m also something of an armchair sports fan these days although I will actively support sport in the University – and the full spectrum of student activities.” — (L)

**BE THERE**

**ALUMNI.LEEDS.AC.UK**

“Does anyone remember that 2014 will be the fiftieth anniversary of the graduation of the Spanish Department’s Class of ‘64? Does anyone have plans for a reunion in, say, July or early August?”

**75**  
SUCH A LOT HAS HAPPENED SINCE 1975...

I AM DOING GREAT... I CHANGED MY CAREER AND NOW I AM A DIRECTOR & MUSICIAN...

**1978**  
“Would love to hear from anyone in that year or anyone who knew me from my degree, the student union bar or James Baillie flats in 1978.”

“Now married with 4 children. Still enjoying life, should probably take things more seriously and grow up - but why start now?”

**“HI THERE! ANYONE FROM CHEM ENG 1974 OUT THERE?”**

This website is making me remember some great days...

“Looking for my ex-classmates in Chemical Engineering 1993...”

**WHAT’S YOUR NEWS? LET EVERYONE KNOW AND WIN A LEEDS HOODIE**





# Leave a legacy for generations to come

Many of you say your time at Leeds was something special. You talk about the impact Leeds had on your future. And you tell us it was the opportunity of a lifetime.

We want the same for all our future students.

Legacy gifts both large and small provide vital financial support for your University – and may give a student the crucial assistance to get here in the first place.

To find out more about legacy gifts to Leeds, and how you can give someone the opportunity of a lifetime, please complete and return the coupon below.

## Remembering Leeds

### Legacy support for your University

- I would like further information on leaving a gift to Leeds in my Will. Please contact me by phone/email/post (delete as appropriate).
- I have made a gift to Leeds in my Will, and would like to join the Brotherton Circle.

Anyone who pledges a legacy to the University of Leeds will be entitled to join the Brotherton Circle, our exclusive donor recognition society created to thank those who are supporting the University in this unique way. We will be in touch to confirm your membership.

[www.alumni.leeds.ac.uk/legacies](http://www.alumni.leeds.ac.uk/legacies)

Name: .....

Address: .....

..... Postcode: .....

Email: .....

Telephone: .....

Please return this form to:

Legacies, Alumni and Development Team  
University of Leeds, Leeds LS2 9JT

Alternatively please contact us on **0113 343 2347**  
or [legacies@leeds.ac.uk](mailto:legacies@leeds.ac.uk)



**UNIVERSITY OF LEEDS**

## VC's VIEW



### AS HE PREPARES TO LEAVE FOR A NEW ROLE, PROFESSOR MICHAEL ARTHUR LOOKS BACK ON HIS NINE YEARS AT LEEDS

It was a very tough decision, but the post of President and Provost of University College London is perhaps the only one which would have ever tempted me to leave Leeds.

These have been nine memorable years. I've thoroughly enjoyed my time here and together we've achieved so much. Leeds is truly a great university with enormous potential – and I know I leave you in fine shape and with every reason to feel optimistic for the future.

There have been so many highs during my time here that it's hard to highlight just a few. The return of The Who to play at the Refectory was clearly one, our Olympic and Paralympic success in London another. That our key partnerships with Opera North and Marks and Spencer are bearing fruit is a continuing source of pride.

I also take delight in our renewed engagement with you, our alumni. It's been a pleasure to meet so many of you on the high days of University life – open days and honorary degrees, concerts and celebrations – and at events in the UK and overseas.

Academically we've made great strides. Queen's Anniversary Prizes for our Institutes for Transport Studies and Medical and Biological Engineering demonstrate the high regard in which our work is held; our strong performance in the 2008 Research Assessment Exercise proved a springboard for further success, underpinning a steady increase in research grant income.

In preparing for its 2014 counterpart – the Research Excellence Framework

– we have been drawing together strong case studies which show how research from across campus is making a real difference in the wider world. So it was timely to hear the announcement of a new £5.7 million Centre for Innovative Manufacturing in Medical Devices. Led by Leeds and funded by the Engineering and Physical Sciences Research Council, it will transform the manufacture and performance of replacement joints and medical implants.

Talking of transformation, if you haven't been back to Leeds in a while you should, if only to see how our Edge sports centre and swimming pool, magnificent Marjorie and Arnold Ziff Building, stage@leeds theatre and new homes for our work in energy, law and the environment have changed the face of campus, almost beyond recognition. And work starts this summer on a new state-of-the-art library which will be a landmark moment every bit as significant as when our Brotherton and Edward Boyle libraries first opened their doors.

These nine years haven't all been plain sailing. The financial landscape of higher education in 2013 is quite unlike that of 2004. That we were able to navigate the transition from a world of significant Government support to one where students must prepare to fund their own study after graduation, is a tribute to our strategy, which we have developed over a number of years, and which remains the set of guiding principles behind everything we do together.

“  
I KNOW THAT LEEDS  
HAS A POWERFUL PULL  
FOR PEOPLE IN A WAY  
FEW UNIVERSITIES DO  
”

Thanks to our strategy and clear-sighted determination, we anticipated these financial changes, made our important moves early, and developed – with your help – ground-breaking measures to ensure no able student of any background is prevented from studying at Leeds on financial grounds alone. Thanks to a wide range of scholarships, funded by alumni, both to encourage young people to aspire to a place at Leeds and to support them to succeed once they arrive, we remain in the vanguard of widening participation. Needless to say, Leeds remains a very popular destination.

The strategy is perhaps the aspect of my time at Leeds of which I am most proud. Now being refreshed, it can guide the University confidently towards the future. It is not my strategy, it belongs to the entire University community. It has guided us well and, at its core, it is enduring. We are on a very important journey and we must continue to pursue its destination with vigour.

Though I am by birth and by instinct a southerner, my accent still Essex, my football team still Tottenham, there is now a part of me that will be forever Leeds. I know many of you feel the same: that wherever you are in the world, wherever your lives and careers have taken you, Leeds remains an important part of your lives.

From meeting so many of you down the years I know that Leeds has a powerful emotional pull for people in a way few universities do. It's a distinctiveness hard to convey in an undergraduate prospectus, but I know that it's true: that three years in Leeds gives our young people an education and a life experience not always matched elsewhere.

One warming aspect of my announcement has been the tremendous number of personal messages I have received from staff, students and alumni, congratulating me on my appointment at UCL. More than anything this encourages me greatly, and signals that we have achieved a great deal together. I know the University will continue so to do. — (L)



# FORTHCOMING EVENTS

## ALUMNI ANNUAL LECTURE 2013



### A CHANGING INTERNATIONAL LANDSCAPE: THE FUTURE OF THE GLOBAL ECONOMY RT HON JACK STRAW MP (LAW 1967, LLD 1999)

Saturday 9 November  
11.30am-12.30pm  
Rupert Beckett Lecture Theatre,  
Michael Sadler Building,  
University of Leeds

This year's annual lecture will be given by the Right Honourable Jack Straw MP (Law 1967, LLD 1999) who has been MP for Blackburn since 1979. Throughout Labour's period of office from 1997-2010, Jack served continuously in the Cabinet holding many senior positions including those of Home Secretary, Foreign Secretary and Secretary of State for Justice.

Jack was President of the Students' Union whilst at Leeds and President of the National Union of Students from 1969-71.

The lecture is free to attend, but booking is essential. Admission is by ticket only. Booking and further details at [www.alumni.leeds.ac.uk/JackStraw](http://www.alumni.leeds.ac.uk/JackStraw)

## SEP 2013

### ALUMNI LOUNGE AT THE UNIVERSITY OPEN DAY

Saturday 14 September  
1.00-3.30pm  
The Great Hall, 1913 Room,  
University of Leeds

Enjoy complimentary tea and coffee, cakes and strawberries while relaxing in this peaceful room at the heart of campus.

Further details at [www.alumni.leeds.ac.uk/openday](http://www.alumni.leeds.ac.uk/openday)

## OCT 2013

### CELEBRATING TEXTILES AT LEEDS: PAST, PRESENT AND FUTURE

Friday 4 October  
10.00am-2.30pm  
Centre for Technical Textiles,  
University of Leeds

From one of the founding departments of the University to one of the top textiles research centres in the world, Textiles has always been at the heart of the Leeds tradition for excellence and innovation. Textiles graduates are invited back to Leeds for a special day of talks and tours about current research. There will also be time to meet with fellow alumni and current academics over lunch at University House.

The day is free to attend, but places are limited and booking is essential. Booking and further details at [www.alumni.leeds.ac.uk/textilesevent](http://www.alumni.leeds.ac.uk/textilesevent)

### EAST ASIAN STUDIES 50TH ANNIVERSARY ALUMNI RECEPTION

Friday 25 October  
5.30-8.00pm  
Parkinson Court, University of Leeds

Whether you studied Chinese or Japanese, Thai or Mongolian, East Asian or Asian Pacific Studies, you're

PHOTO:  
JACK STRAW

CREDIT:  
STRAWBERRY ROSE  
STUDIOS

invited back to celebrate 50 years of Chinese and East Asian Studies at Leeds. Come and join with fellow alumni and current and former staff to reminisce on the past and celebrate the future.

Cost: £10. Booking is essential. Why not make a weekend of it and get together with friends from your year? Visit [www.leeds.ac.uk/arts/EAS50](http://www.leeds.ac.uk/arts/EAS50) for more information and all the anniversary events at the end of October.

### ALUMNI LOUNGE AT THE UNIVERSITY OPEN DAY

Saturday 12 October  
1.00-3.30pm  
The Great Hall, 1913 Room,  
University of Leeds

Enjoy complimentary tea and coffee, cakes and strawberries while relaxing in this peaceful room at the heart of campus.

Further details at [www.alumni.leeds.ac.uk/openday](http://www.alumni.leeds.ac.uk/openday)

### LEEDS 2 LONDON PUB NIGHT

Thursday 24 October  
6.30-8.30pm  
The Yorkshire Grey pub,  
2 Theobald's Road, London

Alumni from all over London come together for our popular London pub nights. Drop in for a drink and you'll end up staying the evening enjoying the company.

Booking and further details at [www.alumni.leeds.ac.uk/londonpubnight](http://www.alumni.leeds.ac.uk/londonpubnight)

## NOV 2013

### ALUMNI ANNUAL LECTURE

A changing international landscape: The future of the global economy  
Rt Hon Jack Straw MP  
Saturday 9 November

11.30am-12.30pm

see sidebar

### ALUMNI ANNUAL LUNCH

Saturday 9 November  
12.45pm  
University House, University of Leeds

A three-course alumni lunch at University House hosted by the Deputy Vice-Chancellor and attended by Rt Hon Jack Straw MP will follow the lecture at 12.45pm. The lunch costs £30 per person. Booking is essential. Booking and further details at [www.alumni.leeds.ac.uk/JackStraw](http://www.alumni.leeds.ac.uk/JackStraw)

### LEEDS UNIVERSITY UNION 75TH BIRTHDAY LAUNCH EVENT

Saturday 9 November  
From 3pm  
Leeds University Union,  
University of Leeds

All alumni with links to Leeds University Union are invited to an event to launch the Union's exciting plans for its 75th birthday in 2014. The Rt Hon Jack Straw MP, President of the Union from 1968-69, will be speaking at the Union between 3pm and 4pm about his experiences as an Officer and his time at Leeds. There will also be a range of events taking place during the afternoon and evening including a reception in the Terrace bar, tours of the building and the chance to meet current students and hear about their clubs and societies.

Further details at [www.luu.org.uk/JackStraw](http://www.luu.org.uk/JackStraw)

### ALUMNI MEDIA GROUP

Tuesday 12 November  
6.30-8.30pm  
Central London venue TBC

Our annual networking event for Leeds alumni working in journalism and the media industries. Booking is essential. Visit [www.alumni.leeds.ac.uk/mediaevent](http://www.alumni.leeds.ac.uk/mediaevent)

## DEC 2013

### SPECIAL COLLECTIONS: THE FEASTS OF CHRISTMAS PAST

Monday 9 December  
2.30-4.00pm  
Brotherton Room, Brotherton  
Library, University of Leeds

Our seasonal Special Collections event might just provide the inspiration and ideas you are looking for to make this year's Christmas catering a little different! We'll be exploring the cookery collection, discussing changes in taste and technology and finding out about the research to re-create old recipes and investigate cooking techniques.

The University's cookery collection is a nationally-important set of works on cooking, domestic life and trends in health and diet covering the 16th century to the present day. Refreshments based on historic festive recipes will be provided. Booking and further details at [www.alumni.leeds.ac.uk/specialcollections](http://www.alumni.leeds.ac.uk/specialcollections)

### VICE-CHANCELLOR'S ANNUAL SCHOLARSHIPS RECEPTION

Wednesday 4 December  
6.30-8.30pm  
Parkinson Court, University of Leeds

We will be holding our 6th annual scholarships reception at Parkinson Court. Formal invitations will be sent to all of our donors as an opportunity to meet this year's recipients.

This event is by invitation only. For further details, contact Emily Hudson at [E.Hudson@leeds.ac.uk](mailto:E.Hudson@leeds.ac.uk) or 0113 343 3945.

### LEEDS UNIVERSITY OLD STUDENTS ASSOCIATION IN YORKSHIRE

Tuesday 10 September: Afternoon visit to the award-winning Holmfirth Vineyard outside Huddersfield, established in 2007 by a Leeds graduate: tour and tasting.

Wednesday 11 December: Festive Lunch at Castle Grove, Leeds: speaker to be confirmed. For more info and bookings contact Gillian Roche, LUOSA Secretary on [gmroche@btinternet.com](mailto:gmroche@btinternet.com)

### LEEDS UNIVERSITY HONG KONG ALUMNI ASSOCIATION

November (date TBC)  
Annual dinner for all Leeds alumni in Hong Kong. For further details visit [alumni.leeds.ac.uk/hongkong](http://alumni.leeds.ac.uk/hongkong)

### ALUMNI ASSOCIATIONS

LUOSA in Yorkshire  
[alumni.leeds.ac.uk/luosa](http://alumni.leeds.ac.uk/luosa)

LUOSA London branch  
[www.luosa.org.uk/](http://www.luosa.org.uk/)

Leeds University Hong Kong Alumni Association  
[alumni.leeds.ac.uk/hongkong](http://alumni.leeds.ac.uk/hongkong)

Leeds University Alumni Association Singapore  
[alumni.leeds.ac.uk/singapore](http://alumni.leeds.ac.uk/singapore)

Leeds University Alumni Association Ghana  
[alumni.leeds.ac.uk/ghana](http://alumni.leeds.ac.uk/ghana)

Leeds Alumni Shanghai Group  
[alumni.leeds.ac.uk/shanghai](http://alumni.leeds.ac.uk/shanghai)



# WILL YOU HELP US BUILD A NEW LIBRARY FOR LEEDS?

URGENT!

  
UNIVERSITY OF LEEDS

A gift from one  
generation to  
the next: a new  
library for Leeds

BUILDING STARTS:  
12/8/2013



*You could transform this car park  
into a state-of-the-art library*

In the 38 years since the Edward Boyle Library opened, student numbers at Leeds have doubled. There are now nine students for every seat in the library. We desperately need a new library. Building is set to start in just nine weeks, so we need your help today. Will you get behind this exciting new project and help build a new library for Leeds?

*Please send your gift today -  
building starts on 12 August*

*You could be part of this historic build*

*The new, state-of-the-art library will continue to inspire generations of students – just as the Brotherton and Edward Boyle Libraries inspired you.*

The new library will stand on Woodhouse Lane, just down from the Parkinson Steps. It creates a fitting entrance to the University and is testament to our ambition to be recognised as one of the world's leading universities.

With your gift today, you can leave a lasting mark on the University of Leeds and provide a vital resource to students for decades to come.

**VISIT [ALUMNI.LEEDS.AC.UK/BUILDALIBRARY](http://ALUMNI.LEEDS.AC.UK/BUILDALIBRARY)**

to give a special gift today, and help  
build a new library for Leeds.



Or give by Mobile: Text  
**LIBR14 £3, LIBR14 £5, or  
LIBR14 £10** to **70070** to  
give £3, £5 or £10 today



Post: Fill in the Update Your  
Details form **enclosed** with  
this issue and return it in  
the envelope provided