

# NORTHUMBRIA

### UNIVERSITY NEWS

Issue 17

### NEW £7M BUILDING OPENS

Computer and Information Science students are enjoying their world-class new home.

Turn to Pg. 20-21 for the full story.



### SIMPLY THE BEST

Northumbria has been named the best university in the North East for its student experience.

Turn to Pg. 3 to read more.



### STUDENTS ARRIVE IN AMSTERDAM

Teaching has begun at Northumbria's new Dutch campus following its partnership with Amsterdam University of Applied Sciences. **Turn to Pg. 8**.





# Taking on the world

Northumbria has increased its standing in international league tables and is now ranked in the top 401-500 in the world according to the latest Times Higher Education World University Rankings 2019. The World University Rankings rate a total of 1,258 institutions worldwide for their excellence in teaching, research, industry income and international outlook. Last year, Northumbria was ranked in the top 501-600. The University's improvement is due to a dramatic rise in research citations. This recognises the increased volume and quality of research coming from the University and puts Northumbria

Northumbria has shown the world it is really ready to 'take on tomorrow' after a series of successes over the last month, from a substantial increase in global rankings, to being named the best university in the North-East for student experience.

in the top quartile of global universities for research citations. There were also sizeable increases for Northumbria in the categories of analysing the ratio of papers to academic staff, and co-authorship of papers with international partners. This confirms that the University's

academics are undertaking more research, specifically in collaboration with universities worldwide.

worldwide.
Vice-Chancellor, Professor
Andrew Wathey CBE, said: "We
have invested heavily in research
at Northumbria since 2009 as part
of our vision for 2025 to be known

as a research-rich, businessfocused, professional university with a global reputation for academic excellence. As a result, we have transformed the volume and quality of our research activity. Our improved position in Times Higher Education's global rankings is significant affirmation of our strategy, pace and direction and of Northumbria's status as a challenger institution." The strides made by the University internationally have been supported by a strong foundation in national league tables and key measures of student satisfaction and experience.

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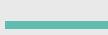




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### New 24/7 student space opens its doors

A brand-new computer area for students to work and collaborate has opened its doors in the heart of campus.

The University Library Digital Commons is based on the ground floor of Northumberland Building, overlooking the Student Quad, and has been created to provide 24/7 access to specialist IT resources as well as extra computers for all students

The new and refurbished space is home to more than 100 high-spec PCs and 15 Macs and will also trial AppsAnywhere a new technology which allows students to 'stream' software to these devices without the need to visit specialised computer labs in faculties.

Professor Peter Francis, our Deputy Vice-Chancellor, has helped oversee the creation of this new space: "This really is a fantastic resource for all students to enjoy. It will allow them easier access to a range of specialist software on the latest technology available, and I believe the study spaces will provide them with a great learning environment for them to work in."

Simon Noble, Northumbria Students' Union President, who has been part of the planning of this project added: "It's great to see this space open to students. It's right at the centre of the city campus, so will give students a handy place to study before or after lectures.

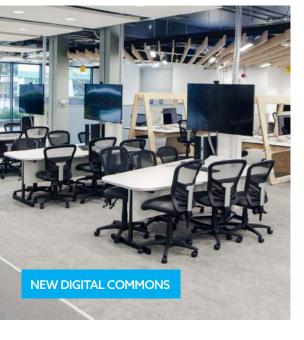
It's also right next to Student Central and the Library, which I know they will appreciate, especially at busier times of the academic year.'

The University Library Digital Commons is in the ground floor of Northumberland Building, adjacent to the Students' Union Building at the University Quad, and is open to all students 24/7 via smartcard access.

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## STUDENTS AT THE HEART

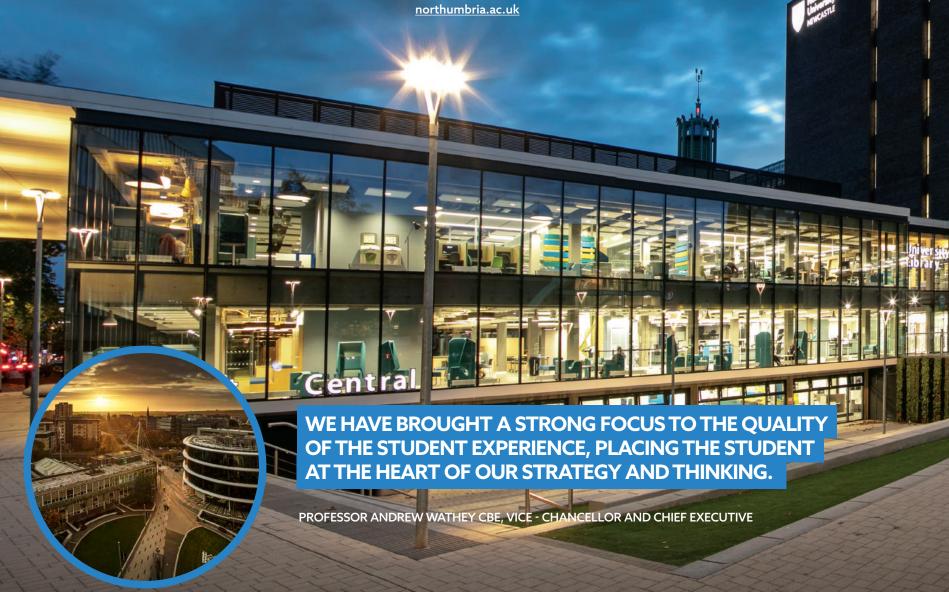
Northumbria's campus continues to take on tomorrow thanks to more than £250m investment in recent years. The University's world-class buildings and facilities were recently mentioned as one of the ways Northumbria is providing an outstanding experience for its students - officially the best in the North East, according to The Times and Sunday Times.

Northumbria was ranked the best in the region for student experience following a significant investment in its estate and facilities in recent years. This has included the development of new buildings for students on Computer and Information Sciences and Architecture courses, the opening of Student Central (pictured below), and the transformation of the University Library facilities, which house more than 1.3 million print

Over the last two years, the University has also made major changes to the way students access its various support services. The creation of Student Central has provided a one stop shop for students to ask staff for help and advice with issues such as visas, financial support, careers and New facilities available for students this academic year include an improved e-learning portal and a new Student Skills Centre to provide training and support in areas such as information literacy and CV workshops. Most recently, a new 24/7 open access IT hub with more than 100 high-spec PCs and Macs opened next to the Library in the heart of the city campus. Turn to Pg. 2 to see the first images of this brand new space and Pg. 20-21 for the first look inside our new £7m Computer and Information Sciences building.

Alongside the University's campus investments, The Times and Sunday Times also praised Northumbria's international focus and its reputation for graduate employability as key factors in its rise of five places in the latest rankings and best in the region for its student experience.





# **TAKING ON** THE FINAL FRONTIER

Northumbria's world-leading academics are reaching new heights with interstellar research into space weather, health and law, taking place across the University. Northumbria University News rounds up the latest out-of-this-world research from Mathematics, Physics and Electrical Engineering, the School of Law, and Sport, Exercise and Rehabilitation.

### SEEING THE SUN IN A WHOLE NEW LIGHT

Solar physicists from Northumbria have been helping to make sense of brand new images of the Sun. They have joined a select group of scientists who have been invited by NASA to analyse the images to understand more about the Sun's atmosphere - its corona – and why it is much hotter than its surface. Their analysis could help to explain why gas that makes up the corona reaches temperatures 250 times higher than the Sun's surface. The hot gas is often released into the solar system during solar flares, affecting weather on Earth and disrupting radio, GPS communications and satellites.

Dr Richard Morton, Senior Lecturer in Mathematics, Physics and Electronic Engineering, is part of the team working on the images. He was invited to join the research group after impressing NASA with his report on a previous 2012 mission.

These images have the finest detail we have ever seen," he explained. "There are billions of stars in the universe and we don't really know how they work, so this mission will deepen our understanding

"The Sun's surface temperature is 6,000 degrees and its corona is 1.5 million degrees and we don't know why - but it's thought that the Sun's magnetic field plays a role.

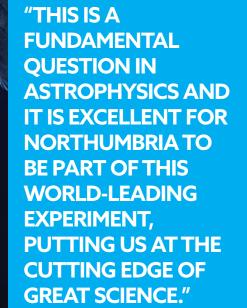
"This is a fundamental question in astrophysics and it is excellent for Northumbria to be part of this world-leading experiment, putting us at the cutting edge of great science.'

The images of the Sun's corona were taken by the High Resolution Coronal Imager, known as Hi-C, during a recent missile launch. The imager observed the Sun's corona in fine detail, taking images of "unprecedented clarity" every five seconds during its

Dr Morton and PhD student Ajay Tiwari have six months to study the images, as part of the NASAappointed international team.

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northumbria.ac.uk/physics



DR RICHARD MORTON. **SENIOR LECTURER IN** MATHEMATICS, PHYSICS AND **ELECTRONIC ENGINEERING** 

### **RESEARCH THAT'S OUT OF THIS WORLD**

The sky was by no means the limit for Northumbria intrepid researchers.

Professor Nick Caplan and Dr Andrew Winnard travelled to Bordeaux in France, where they took part in a partial gravity flight experiment to determine how space travel affects astronauts' spinal muscles.

Northumbria's research was selected by the European Space

Agency (ESA) and funded by the UK Space Agency, with the longterm aim of putting humans on the Moon again, as well as longer-term goals of humans colonising Mars. The team completed a gruelling 93 parabolas over three flights, where the gravity level was reduced by up to 75% of the Earth's

"It was the best experience ever," said Andrew. "The feeling of transitioning from normal to reduced gravity and then back to normal gravity was more intense than I had expected. In the first parabola I was on my back on the plane floor thinking how am I possibly going to manage to stand up and work through

"However, your body becomes used to it and it starts to all feel quite normal.

The experiment and all our participants were fantastic, no one in our group was sick and everything worked together as a team. We collected a lot of data and initial analysis looks good so far."

This study is one of a series where Northymbria University has collaborated.

This study is one of a series where Northumbria University has collaborated with the European Space Agency's Space Medicine Office to look at spinal muscle health. This research will also help people on Earth, such as those with low back pain who have similar spinal muscular changes to astronauts, with spaceflight ageing the body about seven times faster than normal ageing on Earth.

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### **SPACE LAW LECTURES LAUNCHED**

Space exploration, mining opportunities in space and regulatory frameworks surrounding outer space are just some of the far-out subjects on the syllabus of a new space law module just launched by Northumbria

The new lectures, being offered to third year Northumbria Law School students, have been developed and will be delivered by Professor Chris Newman, one of Europe's leading experts in space law and policy.
He explained: "It is extremely rare for space law lectures such as this to be offered to undergraduates in UK universities, so this is a really exciting opportunity for our students. As well opening up a whole new learning experience, it will give them entirely new employment options to explore.

"The Government has a clear strategy to develop space exploration and to take a leading international role. The North East is also becoming a real hub for start-up space companies who are already making significant inroads into this growing sector. We already work with businesses and new ventures specialising in services like space security, space situation awareness and air traffic control in space – and they will be looking for law graduates with an understanding in these emerging sectors."

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# Engineer with a vegan vision

A PhD student from Northumbria University has developed an enterprising way of making mushrooms go further - by turning them into homes.

Ehab Sayed's ground-breaking vision to create vegan buildings from natural materials like mushrooms has led him to win a major international award receive and interest from leading UK house builders

Ehab combines his PhD studies with his business, Biohm, which he launched in 2016.

Biohm develops natural products for use in construction, including the creation of insulation made of mycelium – the vegetative part of a mushroom.

Ehab has developed a range of eco-friendly, natural, biodegradable, vegan construction materials which actually consume waste and carbon during production, with some even purifying the air during use.

His mushroom-based insulation material also fully meets fire safety standards because of its self-extinguishing nature.

The products are so environmentally friendly that if just 150 buildings were constructed using them each year in the UK, Ehab estimates they would reduce the nation's energy consumption by 300 million kilowatt hours and divert 10 million tonnes of waste from landfill, valued at £35 million and £5 billion respectively.

He has also developed an interlocking construction system called Triagomy, based on the molecular structure of carbon. which enables walls to be moved and rooms added to existing buildings with little fuss.

Ehab, who is studying with Northumbria's Department of Architecture and Built Environment, has just been named as this year's winner of the COINS Grand Challenge for Global Leadership – the largest global competition in the construction

PROCESSES AND BIOLOGICAL SYSTEMS." **EHAB SAYED, PHD STUDENT, ARCHITECTURE** AND FOUNDER OF BIOHM his PhD, he won the Materials for He explained: Biohm would like to lead the construction industry Forum 2018 Prize. He's just won a Shell LiveWIRE Smarter to a biomimetic future, where everything is inspired by natural Future Programme award, processes and biological systems. designed to support innovative This will allow us to create a much ideas that meet the energy more energy efficient, resource and resource needs of a fast efficient and healthier built environment "My vision is quite 'out there'

**"WE'D LIKE TO LEAD THE** 

CONSTRUCTION INDUSTRY

TO A BIOMIMETIC FUTURE,

WHERE EVERYTHING IS

INSPIRED BY NATURAL

for the construction industry, The mushroom-based so it was very surprising to win the COINS award, but also very interesting to see that the industry is ready to embrace biological materials when you can find a way to make it work

'Winning the COINS Grand Challenge is transformational for what we do because it adds an incredible amount of credibility to win a construction competition, so this is a great stamp of approval

Ehab is no stranger to accolades. Within four months of beginning Architecture Young Researchers growing population. He was also shortlisted for the United Nations' Young Champions of the Earth

insulation will be available for sale over the coming months and Ehab has also been in discussions with Tata Steel and Heathrow Airport about using his materials.

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### **KEY FACTS**

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Mushrooms are more closely related in DNA to humans than to plants. Like human skin, mushrooms can produce vitamin D by being exposed to sunlight. In fact, exposing a freshly cut shiitake mushroom, gills up, to the sun for eight hours can increase its vitamin D content by as much as 4,600



Ancient Egyptians believed that mushrooms grew by magic, because of the way they could

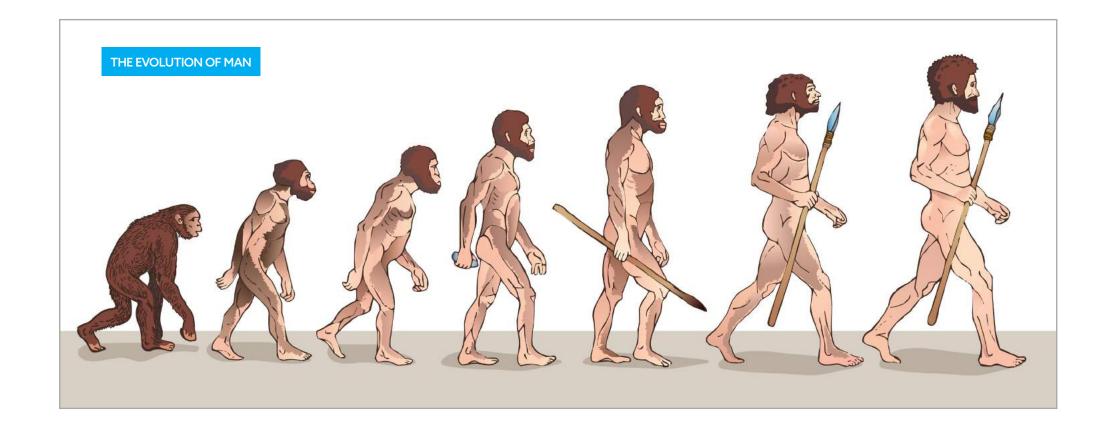


The Honey Mushroom (Armillaria ostovae) is the world's largest known organism. This massive fungus covers 2,384 acres (nearly four square miles) of soil in Oregon's Blue Mountains. The fungus is estimated to be 2.400 years old but could be as ancient as 8.650



Fungi use antibiotics to fend off other microorganisms that compete with them for food. The antibiotic penicillin was derived from the fungal species Penicillium.

# Did climate change kill off cave men?



in Europe – they became

extinct. For many years we

have wondered what could

the arrival of modern

humans, or were

other factors

involved? Our

study suggests

that climate

change may

have had an

Neanderthal

extinction.'

important

role in the

have caused their demise. Were

they pushed 'over the edge' by

to rapid environmental change.

In comparison, modern humans

With a growing expertise in the study of cold and ancient environments, new research from Northumbria University has found that climate change may have played a bigger role in the extinction of our closest human relatives, the Neanderthals, than previously believed.

This realisation emerged after Dr Vasile Ersek, from Northumbria's Department of Geography and Environmental Sciences, worked with researchers from several European and American research institutions to examine

stalagmites in Romanian caves. Stalagmites and stalactites are a type of rock formation that grows in caves. They grow slowly due to dripping water and take their form either by hanging from the ceiling, which is known as a stalactite, or up from the floor, known as a stalagmite. As they grow over time, in thin layers each year, they preserve any changes in temperature within their structure. Over thousands of years, this creates a natural archive of climate change, which are known as palaeoclimate records.

The stalagmites showed a

series of prolonged extreme cold and excessively dry conditions in Europe between 44,000 and 40,000 years ago. They reveal a cycle of temperatures gradually cooling and staying very cold for an extended time and then suddenly warming again. When the researchers compared these climate records with archaeological records, they found a huge absence of tools developed during the cold periods. This suggests that the Neanderthal population declined during the cold periods, meaning climate change played a role in their eventual extinction.

Dr Ersek explained: "The Neanderthals were the human species closest to ours and lived for some 350,000 years. However, around 40,000 years ago – during the last Ice Age and shortly after the arrival of anatomically modern humans

The researchers believe that modern humans were able to survive these cold periods because they were better adapted to their environment than the Neanderthals. Although Neanderthals were skilled hunters and had learned how to control fire, they had a less diverse diet than modern humans. They lived largely on meat from the animals they had killed. These food sources would naturally become scarce during colder periods, making Neanderthals more vulnerable

had already begun eating fish and plants as well as meat, which potentially helped them to survive. "Before now, we did not have climate records from the region

where Neanderthals lived which had the necessary age accuracy and resolution to establish a link between when Neanderthals died out and the timing of these extreme cold periods," said

Dr Ersek. 'Our findings

indicate that the Neanderthal populations successively decreased during the repeated cold periods. When temperatures warmed again,

their smaller populations could not expand as their habitat was also being occupied by modern humans, and this facilitated a staggered expansion of modern humans into Europe," he added. The findings of the research were published in the renowned international journal, Proceedings of the Natural Academy of Sciences. This is the second most-cited journal in scientific research, recognising the high-quality papers it

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**WERE THE HUMAN SPECIES CLOSEST TO OURS... HOWEVER, AROUND 40,000** YEARS AGO... THEY BECAME **EXTINCT. FOR** MANY YEARS WE **HAVE WONDERED** WHAT COULD HAVE **CAUSED THEIR DEMISE. WERE** THEY PUSHED **'OVER THE EDGE'** BY THE ARRIVAL OF **MODERN HUMANS,** OR WERE OTHER **FACTORS INVOLVED? OUR STUDY SUGGESTS THAT CLIMATE CHANGE MAY HAVE HAD AN IMPORTANT ROLE IN** THE NEANDERTHAL **EXTINCTION.**"

**NEANDERTHALS** 

DR VASILE ERSEK, **DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCES** 

# First students go Dutch



Amsterdam canal

Northumbria University NEWS • Autumn 2018

**Professor Andrew** Wathey and Dr Geleyn Meijer at the signing ceremony in Amsterdam

### Students have arrived for the first academic year at Northumbria new Amsterdam campus.

The opening of the campus follows Northumbria's international partnership with Amsterdam University of Applied Sciences, which was formally inaugurated in September with a ceremonial

Professor Andrew Wathev CBE, Vice-Chancellor and Chief Executive of Northumbria University, and Dr Geleyn Meijer, Rector and Member of the Executive Board at AUAS signed a document to officially register the partnership and celebrate the start of the first academic year

Professor Wathey said: "We are delighted to have welcomed our first cohort of students in Amsterdam and to have cemented our partnership. AUAS is an outstanding university that shares our commitment to quality, academic excellence and providing students with an exceptional learning experience. The partnership establishes a strong presence for us in mainland Europe and enhances what we can offer both to international and UK students. We now look forward to deepening our collaboration with AUAS in areas such as

teaching, research, exchange programmes and through greater business and cultural engagement."

Masters programmes in both Business and Project Management are now being taught in Amsterdam by Northumbria academics working with AUAS colleagues. Interest has been extremely high for a first year, reflecting a clear desire among international students to study for a UKaccredited degree in Europe

The partnership also offers the chance for undergraduates from Northumbria to study

in Amsterdam, and for students from AUAS to study in Newcastle, Northumbria has international partnerships in places including Hong Kong, Jakarta, Singapore, North America, Qatar, and now Amsterdam - one of the most interconnected cities in the

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WITH AN INTERNATIONAL **FOCUS AND GLOBAL** MINDSET, OUR **PARTNERSHIP WITH AUAS ESTABLISHES** A STRONG PRESENCE FOR US IN EUROPE **AND ENHANCES WHAT WE CAN** OFFER BOTH TO **INTERNATIONAL AND UK STUDENTS.**"

'AS A UNIVERSITY

ANDREW WATHEY CBE



Northumbria University News asks Vice-Chancellor and Chief Executive Professor Andrew Wathey CBE about a new five-year strategy to build on the University's success, and the role it can play regionally, nationally and internationally.

PROFESSOR ANDREW WATHEY CBE

NORTHUMBRIA UNIVERSITY

VICE-CHANCELLOR AND CHIEF EXECUTIVE

The launch of our new strategy for 2018 - 2023 is an important and exciting moment for Northumbria, our students, colleagues and our partners. It is the second of three major strategic plans for a transformation that will put us among the sector's top institutions by 2025 – and it follows a period of growth and notable success. Since we started in our transformation in 2013, for example, our investment in research saw us move from 80th to 50th in research power in the 2014 Research Excellence Framework (REF), overnight taking us to a new level and opening opportunities hitherto unavailable. We recruit exceptional students, the best qualified of any of the newer universities in the UK, and we are top 30 in England for student entry qualifications. Our students also come from an increasingly diverse range of backgrounds. In 2017 we were nominated for University of the Year in the Times Higher Education Awards, a significant acknowledgement of our

Tell us about the Strategy and

where it can take Northumbria.

There are many similarities between this strategy and its predecessor for the period 2013-2018. These include ambition, pace and direction, and an uncompromising focus on quality all of which are unchanged. Another linking factor is the centrality of our students, who sit at the core of the strategy. But there are also some important new elements.

Our people are key to the strategy and that is at the heart of how it was developed. More than 700 colleagues have contributed to the design and content of the strategy in a series of engagement sessions over the past year. Research will continue to play

and we will also develop further post-study employment support an important role, not only in for all students. itself but for its ability to drive excellence across the full range of university activities, Research education, knowledge exchange and our internationalisation are all intertwined activities and will work together to enable us to diversify our sources of income over the next five years. Building on our previous success we begin the new strategy period with a full range of supporting plans ready, enabling us to begin effective implementation quickly.

# The Big Interview: **University Strategy**

THE BIG INTERVIEW

What does the Strategy mean for

We created the strategy through a consultative process, with input, feedback and constructive comments from staff. For the strategy to be a success, we need to ensure that the staff are empowered and ready to help deliver our plans. This means that for major changes we will look to our colleagues to help us establish how we take the University forward. It also means we will reduce bureaucracy, review progress and report back regularly - updating on the five strategic outcomes and the business outcomes that underpin them.

What does the strategy mean for

students and teaching: research will help our partners The future is challenging but and stakeholders achieve their exciting. In education we are setting out a rebalanced and refocused taught portfolio based on quality and demand. This will include technological innovation embedded in the classroom. It will involve experiential learning to equip our students with practicebased skills as well as theoretical understanding, alongside extracurricular opportunities such as overseas study or volunteering, because we know these significantly enhance the career prospects of our graduates. We are continuing to invest in our new campus to offer a worldclass student experience. A new Computer Information Sciences facility opened this year, we are extending our Sutherland Building with an innovative studio for What does the strategy mean for architecture students, and we have our partners? iust opened a new student hub to complete the work in and around our Student Central area. The strategy ensures we will continue to invest in student mental health

What does the strategy mean for

research? Our investment in and focus on research is gearing up toward REF 2021. Our Vision puts academic excellence at the heart of everything we do, and highquality research helps drive this. We have continued to build on our REF 2014 result, and in the latest THE World University Rankings for 2019 we rose 273 places in the research citations measure

to 249th place in the world and 37th in the UK. The strategy for 2018-2023 supports this upward trajectory as we aim to be in the top 30, and then the top 20, of universities in the UK. Over the strategy period we will develop our multi-disciplinary research areas, enabling colleagues from across the University to explore some of the world's most urgent and complex challenges. Our globally competitive research is transformative, and benefits the society, economy and culture of the North East and beyond. Students will also benefit from the synergies between research and education. And through knowledge exchange, our

How will external challenges impact on the strategy? We need to be flexible and proactive to respond to external factors. Challenges such as competition, globalisation and technology will be felt for a long time to come, and change is likely to continue to be rapid. There are also short-term challenges; regulation, the Government's review of post-18 education, uncertainties over Brexit and the increase in pension costs, which we must respond to while carefully considering how we maintain a focus on what is important and adapt the way we work with the resources that we have.

Partnership working is a stylistic trait for Northumbria. Whether it is with business and cultural partners or higher education partners, both here in the UK and internationally, our aim is to create mutual gains in reputation and sustainability. High quality institutions want to collaborate with us in research. High quality businesses want to collaborate with us through knowledge exchange and contract research. High quality academics want to work for or collaborate with Northumbria – and as a result. high quality students want to study here. Our partnership with Amsterdam University of Applied Sciences is a good example.

For both institutions it offers opportunities for student exchange and overseas study, and academic collaboration on research and other scholarly activities. As the relationshir develops over time we will deepen our collaboration and work together in a broader range of

So where are we now in terms of the overall Vision? Achieving our Vision can be compared with climbing a

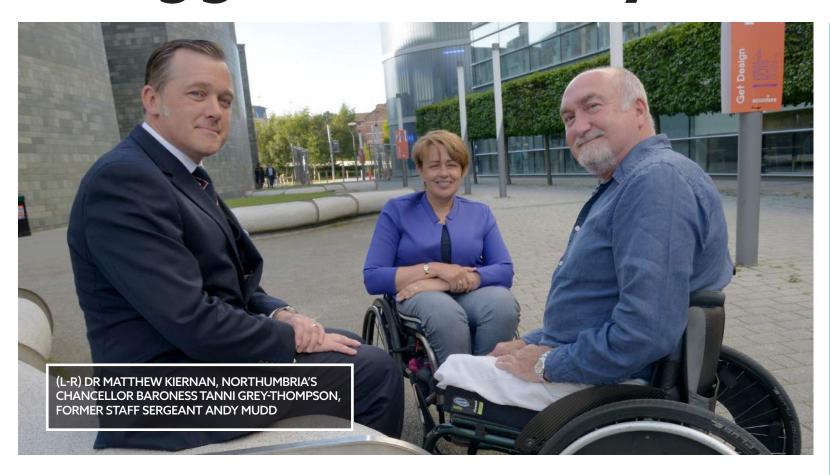
WE HAVE REACHED HALF WAY: THE VIEW HAS **CHANGED AND** THE COMPANY WE KEEP HAS ALSO CHANGED. **WE CAN PAUSE** TO TAKE IN THE **VIEW. IT IS NOW TIME TO RESET** THE COMPASS, **REASSESS THE HORIZON AND MOVE ON WITH RENEWED VIGOUR TOWARDS OUR** 2025 GOAL.

In 2012 the University was faced by a new competitive environment. We had a clear choice, compete on price and face a downward spiral or compete on quality and have a sporting chance of being on an upward spiral. We chose the latter - it was the right choice and we have begun to see the fruits of that. Now our choices and our ability to support the excellent work colleagues and students do is much changed. Formulating a new strategy has given us all a chance to look ahead and consider how our stature and outlook can grow over the next five years.

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A new study by Northumbria University has recommended a wide range of changes to improve care and support for limbless military veterans.

The main aim of the study - the first of its kind anywhere in the UK - was to explore the physical, psychological and social needs of limbless veterans throughout their lives after leaving the armed forces. Funded by the Aged Veterans Fund, the study used in-depth face-to-face interviews with a number of veterans, aged between 43 and 95, across the UK. The long-term goal of the study is to inform how future services are developed and delivered by the NHS and other organisations with the responsibility of caring for limbless vetérans.

The research was, led by the University's Northern Hub for **Veterans and Military Families** Research and conducted in collaboration with Anglia Ruskin University. It revealed that many of the veterans interviewed were struggling with a decline in their physical health, while striving to maintain independence. They also complained that their mobility had seriously deteriorated and that they had

become socially isolated as a result. Inability to secure a job post-injury also had a longterm impact on the quality of veterans' lives and many have been subjected to disability discrimination.

Persistent pain and discomfort are common experiences for many veterans affected by limbloss, according to the study. Pain which is poorly managed may result in the inability to engage in physical activity or to utilise prosthetics comfortably. It could also lead to immobility, isolation within the home and a heavy reliance upon others to meet basic needs

Dr Matthew Kiernan, Associate Professor of Mental Health and Veteran Studies at Northumbria and a former Lieutenant Commander in the Oueen Alexandra's Royal Naval Nursing Service, said: "The aim of this research is to lay a foundation so that limbless veterans can actually guide and direct us to what the problems are. Importantly, the veterans

themselves are telling us what we should be looking at, what further research needs to be done and which policies need to be developed.

"This study illustrates that veterans who are affected by limb-loss require timely access to high quality support and specialist healthcare services. Special attention must also be paid to older veterans who suffered limb-loss before modern medical advances in prosthetic devices and prosthetic

Many veterans also reported ongoing grief which they kept 'bottled up' post-amputation. It is hoped that the study will lead to more timely access to high-quality healthcare services, starting from the time of amputation and extending throughout veterans' lives.



northumbria.ac.uk/health



"THIS STUDY **ILLUSTRATES THAT VETERANS WHO ARE AFFECTED BY LIMB-LOSS REQUIRE TIMELY ACCESS TO HIGH QUALITY SUPPORT AND SPECIALIST HEALTHCARE SERVICES.**"

### DR MATTHEW KIERNAN

### **KEY FACTS**

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Veterans should receive timely access to high quality support and specialist healthcare services - starting from amputation and extending throughout their lifetime. This will help maintain their capacity to engage in daily activities.



Attention should be given to effective pain management for those affected by stump and phantom pain.



Increased support is needed for re-gaining employment, particularly in cases where veterans have limited premilitary education/training.



More support is required to counter isolation and loneliness post injury.



Special attention should be paid to older veterans who have lost limbs prior to contemporary medical advances in prosthetics and care. At the moment too many of them experience a number of barriers to engaging in daily activities and having independence.

# Nursing a new apprenticeship

The UK's first ever nursina dearee apprentices have started their studies at Northumbria University, thanks to a new NHS partnership.

Nursing degree apprenticeships were announced by the government in 2016 as part of the national Apprenticeship Levy. This is a levy on all UK employers with an annual pay bill of more than £3 million. The apprenticeships combine university study and workplace learning to enable employees to gain new knowledge, skills and thinking, whilst completing a degree. They are designed to ensure that businesses are investing in high-quality training that meets their needs.

Northumbria and the Newcastle upon Tyne Hospitals NHS Foundation Trust have been working together to develop a bespoke degree apprenticeship programme for existing staff that fits the needs of the Trust.

The course has been designed to be completed in just over 18 months, rather than the standard two to four years. This is achievable because the chosen apprentices all hold foundation degree qualifications and are already working on wards within the Trust.

To date, Northumbria is the only institute in the country to receive approval from the Nursing and Midwifery Council for an 18-month programme. When the first cohort graduates in 2020, they will officially be the first in the UK to hold the nursing degree apprenticeship qualification – equivalent to a standard Bachelor's degree that will enable them to become a registered nurse.

Professor Alison Machin, Head of Northumbria's Department of Nursing, Midwifery and Health. said: "Northumbria University is proud to be at the forefront of delivering nursing education in the UK. This high-quality degree apprenticeship offers

a new and different route for aspiring nurses to qualify in the profession, with the opportunity for trainees to earn as they learn. We're delighted to be collaborating with the awardwinning Newcastle Hospitals NHS Foundation Trust in its

SUSAN MILLER, ONE OF THE FIRST STUDENTS

TO ENROL IN A NEW 18-MONTH NURS

DEGREE APPRENTICESHIP.

Maurya Cushlow, Executive Chief Nurse at Newcastleupon-Tyne Hospitals NHS Foundation Trust, said: "The partnership is a great example of using the opportunity created by the apprenticeship levy to develop a bespoke programme for experienced staff to take that next step in their nursing career.

Susan Miller is one of the first cohort of eight apprentice nurses, all of whom work as Assistant Practitioners in the Trust. She has worked in healthcare for almost 18 years, starting as domestic assistant, before working and studying her way through the ranks to assistant practitioner in the Royal Victoria Infirmary's dermatology unit. She has secured qualifications and has self-funded her study

We wish them every success."

along the way. She said: "I am so excited to be starting this degree apprenticeship. I've always

through the Open University

is such a fantastic opportunity. The best bit about nursing for me is the contact with patients and being able to offer them the support they need. I'm really looking forward to branching out in nursing once I'm qualified and I'd love to be able to work in either women's health or dementia care, to make a real difference."

wanted to be a nurse, and this

DISCOVER MORE

**GRADUATES IN** 2020, THEY WILL OFFICIALLY BE THE FIRST IN THE **ENTIRE COUNTRY** TO HOLD THE **NURSING DEGREE APPRENTICESHIP** 

**QUALIFICATION** 

WHENTHE

FIRST COHORT

northumbria.ac.uk/nursing



Six newly-qualified Northumbria nurses have been honoured for their dedication to the profession, just months into their new careers.

The outstanding nurses have been given the prestigious Heath Award medal in recognition of the high levels of commitment they've already shown to nursing, through their studies and work placements.

The Heath Award was established in 1892 by George Yeoman Heath, former President of the Royal College of Medicine. It is presented each year to the top graduates from nursing and midwifery programmes. This year's winners, who all achieved First Class Honours in their nursing degree programmes, were chosen after being nominated by academics and clinical staff. Helen Lamont, Chair of the Heath Trust, said: "Nursing and midwifery are such critical roles, and the quality of care makes all the difference to the patient experience. It is a privilege to see the excellent new generation of nurses and midwives that are graduating from Northumbria University. These winners have set exceptional standards within their profession and are very worthy recipients of the

This year's Heath Award Cardiology nurse Emma

Alderson from Washington, Tyne and Wear who works at Newcastle's Royal Victoria Infirmary (RVI); Sophie Bell from Sunderland who is a nurse in Urology at the Sunderland Royal Hospital; former solicitor Peter Busby from Durham, who is now a paediatric intensive care nurse at the Great North Children's Hospital, Newcastle; Rachel Culyer from Killingworth, Newcastle, who works as a nurse in the RVI's Critical Care Unit; neonatal nurse Abbie Elden, originally from Doncaster, who works in the Special Care Baby Unit at the RVI; and Sherilee Gray who lives in Blyth and is a community learning disabilities nurse in

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northumbria.ac.uk/nursing

"IT'S A PRIVILEGE TO SEE THE EXCELLENT **NEW GENERATION OF NURSES AND MIDWIVES THAT ARE GRADUATING FROM NORTHUMBRIA UNIVERSITY."** 

HELEN LAMONT, CHAIR OF THE HEATH TRUST



Northumbria University NEWS • Autumn 2018

LUCY WINSKELL OBE FROM NORTHUMBRIA SIGNING THE ARMED FORCES COVENANT WITH COMMANDER IAN BERRY MBE ON HMS CALLIOPE

# **Support for Armed Forces** leads to prestigious award

Northumbria has secured a Silver Award from the Ministry of Defence's National Employer Recognition Scheme - just a year after becoming the first university in the North East to sign up to the Armed Forces Covenant.

The award is given to employers that show high levels of support to the Defence and the Armed Forces community. Northumbria's work with

the Armed Forces includes the Northern Hub for Veterans and Military Families Research. The hub is dedicated to research on the health and wellbeing of the Armed Forces Community, and has received over £1m of funding including from the Royal British Legion, the Armed Forces Covenant Fund Trust and Sunderland City Council. Research projects cover a broad range of topics including veterans and alcohol problems to families and training

Lucy Winskell, Pro Vice-Chancellor for Employability and Partnerships, said: "To receive the Silver Award within a year of signing up to the Armed Forces Covenant is something the University is extremely proud of. We recognise the contribution and sacrifice made by members of the Armed Forces community. and have pledged to support our

service personnel, veterans and their families."

Minister for Defence Personnel and Veterans, the Rt Hon Tobias Ellwood MP said: "The Silver Award recognises the efforts of employers who have elevated their commitments and provided actual benefit to the Armed Forces Community."

Jamie Carrahar, Senior Lecturer at Newcastle Business School and Army Reservist, added: "This recognises Northumbria's commitment to support the Armed Forces Community. It includes offering additional leave to members of the Reserve Forces, Cadet Forces and Service Families, through to recognising the skills and experience of service personnel and veterans to gain advanced standing to programmes of study."

Turn to page 10 for more on The Northern Hub For Veterans



**WE RECOGNISE THE** CONTRIBUTION AND SACRIFICE MADE BY MEMBERS OF THE ARMED FORCES COMMUNITY, AND HAVE PLEDGED TO SUPPORT OUR SERVICE PERSONNEL, VETERANS AND I THEIR FAMILIES."

CHANCELLOR FOR EMPLOYABILITY

### Walk the walk

A robotic walking frame that could help older people recover more quickly after a fall or injury is being developed by Northumbria University.

The frame has been designed to be used in hospitals and acts as a 'virtual' physiotherapist, reminding and encouraging patients to complete regular exercises so they can recover their strength more quickly and potentially reduce the length of their stay in hospital.

The walker issues voice commands encouraging patients to walk, grip, stand and balance, then assesses their performance. It can also provide data on activity patterns to allow a patient's care team to assess progress. The development, led by a team from Northumbria's Psychology and Communication Technology (PaCT) Lab, is part of a larger European project to create technology to support an aging population.

Professor Lynne Coventry, Director of Northumbria's PaCT Lab, explains: "Reduced mobility can have a serious impact on health, and once an older person gets to a certain level of immobility, their decline can really accelerate.

"This technology aims to help maintain the mobility of older adults, by understanding what goes wrong if they have a fall, encouraging them to be physically active as much as possible. or helping to prevent falls in the first place. It can also help physiotherapists to administer tests and set exercises for patients to do on daily basis to keep them on their feet.'

The walker has recently been tested with a group of volunteers aged 65 or older, including retired teacher Pauline. She suffers from chronic health issues which impact on her mobility, including fatigue and rheumatoid arthritis.

She said: "This is exactly the kind of thing I need to keep me moving. It means I don't have to rely on a professional; instead

it can guide me and account for changes in my mobility. Keeping active is really important as you get older and this frame could encourage you to keep on your

**NORTHUMBRIA'S** 

PACT LAB IS

**FEW HUMAN** 

INTERACTION

WITHIN A

THE UK.

**GROUPS BASED** 

**PSYCHOLOGY** 

**DEPARTMENT IN** 

(L-R) VOLUNTEER TESTER PAULINE WITH PROFESSOR LYNNE COVENTRY

ONE OF THE

COMPUTER

Professor Coventry added: "We've added a persuasive element in the design. So for example the walker will tell a patient when it's time to go for a walk. We're also able to add in goals for the patient to complete It's a great support for the patient and feedback so far from our testers has been encouraging.

The team at Northumbria will

now concentrate on improving their prototype, with the aim that one day it could be used in hospitals across the world to help older people to stay active and agile, for longer.

The development of the walker is part of an EU-funded research project called ACANTO exploring how technology can help to address the challenges of ageing. ACANTO brings together researchers and partners from across Europe, led by the University of Trento, Italy and with clinical trials being undertaken at University Hospital Getafe, Spain. It also includes Siemens as an industry partner.

Northumbria's PaCT Lab is one of the few human computer interaction groups based within a psychology department in the UK and explores the ways in which communications, media and technology affect our everyday lives, including choices and

DISCOVER MORE 📈

northumbria.ac.uk/psychology

**MOBILITY OF OLDER ADULTS, BY UNDERSTANDING** WHAT GOES WRONG **IF THEY HAVE A FALL, ENCOURAGING** THEM TO BE **PHYSICALLY ACTIVE AS MUCH** AS POSSIBLE, **OR HELPING TO** PREVENT FALLS IN

"THIS TECHNOLOGY

**AIMS TO HELP** 

**MAINTAIN THE** 

PROFESSOR LYNNE COVENTRY

THE FIRST PLACE."

# Northern Bridge to success

Northumbria is one of seven institutions offering hundreds of doctoral opportunities thanks to funding from the Arts and Humanities Research Council (AHRC).

Over the next five years, places for 335 doctoral students studying 28 different disciplines will be available through the Northern Bridge Consortium, made up of Northumbria, Durham, Newcastle, Queen's University Belfast, Sunderland, Teesside and Ulster universities. The announcement marks a new era of collaboration between the group, which boasts

universities. The announcement marks a new era of collaboration between the group, which boasts world-class strengths across all Arts and Humanities disciplines. As part of the project, the seven members of the Northern Bridge

As part of the project, the seven members of the Northern Bridge Consortium will work together to run an annual competition for PhD scholarships and deliver an innovative, world-class training programme for successful applicants.

At Northumbria, the project is being led by Professor Richard Terry, Director of the Institute of Humanities, who said: "Northumbria University is delighted to be part of the Northern Bridge Consortium. We will be working to offer world class doctoral training opportunities for our students across the full range of Arts and Humanities disciplines."

disciplines."
Professor Edward Harcourt,
the AHRC's Director of Research,
said: "The AHRC is delighted
to announce its renewed
commitment to the Doctoral
Training Partnerships model. Our
support for the next generation of
arts and humanities researchers
is critical to securing the future
of the UK Arts and Humanities
sector, which accounts for nearly a
third of all UK academic staff and
is renowned the world over for
its outstanding quality, playing a

vital part in our higher education

ecosystem as a whole."

Northern Bridge will promote regional cohesion and development for the North East and Northern Ireland. As part of its commitment to collaborative working, it has developed strategic partnerships with regional, national and international cultural organisations, such as BALTIC Centre for Contemporary Art, Tyne and Wear Archives and Museums, and the British School at Rome.

"WE WILL BE
OFFERING WORLD
CLASS DOCTORAL
TRAINING
OPPORTUNITIES
FOR OUR STUDENTS
ACROSS THE FULL
RANGE OF ARTS
AND HUMANITIES



www.northernbridge.ac.uk



**DISCIPLINES."** 

### Post-Brexit concerns for EU citizens in UK



PROFESSOR TANJA BUELTMANN

More than 3.7m EU citizens living in the UK could find themselves in a state of 'eternal limbo' after Brexit, according to a new report by a Northumbria University academic

Under current plans, all EU citizens living in the UK will have to apply for 'settled status' if they want to stay in the country after Brexit. This is still the case even if they are married to a Briton, and regardless of how long they have lived in the UK.

However, even if their application is successful, the laws relating to 'settled status' can be changed easily and without involving Parliament. This could potentially lead to a 'Windrush' scenario in years to come, according to Professor Tanja Bueltmann, an expert in migration history.

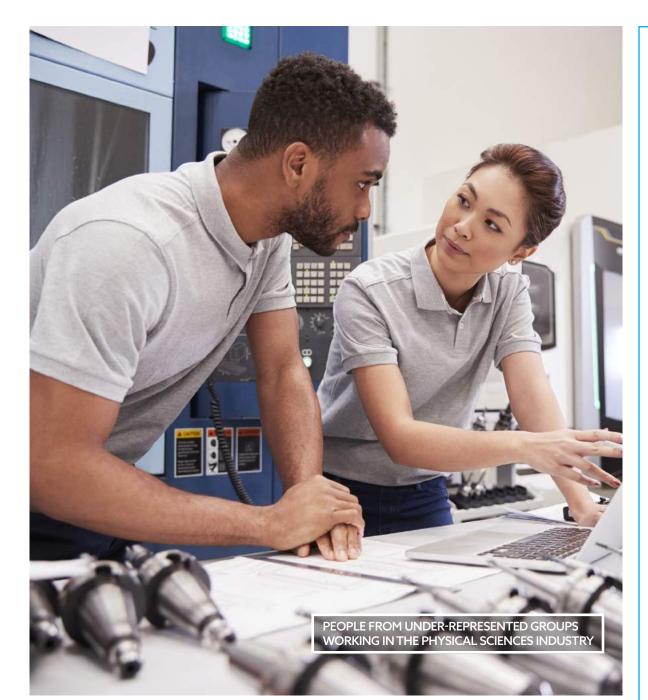
Her paper, Endangered Rights – The Impact of Brexit on EU Citizens, has recently been published by the German political foundation and think tank, the Friedrich Ebert Foundation. In it, Professor Bueltmann sets out her recommendations. These include protecting the rights of EU citizens currently living in the UK, and their UK counterparts living in Europe, no matter the outcome of Brexit negotiations.

The paper will be distributed across Europe to raise awareness of the situation faced by both EU citizens in the UK and Britons in EU countries. It is hoped other EU countries will then exert pressure on the UK government to ensure the rights of people are put before politics.

DISCOVER MORE 

northumbria.ac.uk/history

# Diversity boost thanks to new funding



The Engineering and Physical Sciences Research Council has awarded almost £600,000 to a consortium of northern universities and businesses to raise awareness of under-represented groups.

The engineering and physical sciences sectors contribute hundreds of billions of pounds to the UK economy each year, but people from Black and minority ethnic backgrounds, women, LGBT+ and people with disabilities are poorly represented. A consortium of northern universities is aiming to create a more inclusive culture that will lead to the development of a more diverse pool of talent in these sectors.

Using its expertise as a business-focused university, Northumbria will lead the consortium's work in collaborating with industry. Academics will work with industrial partners to identify good practice on inclusion issues and examine how this can be disseminated to other organisations.

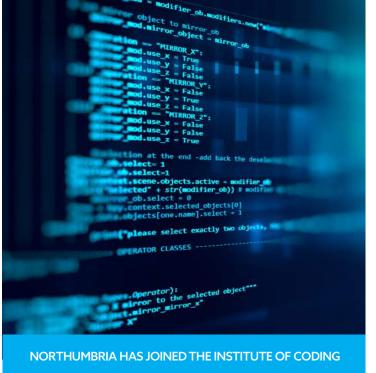
Dr Roger Penlington, Associate Professor in Mechanical and Construction Engineering, explained: "Anecdotal evidence suggests that working in industry is more family friendly than academia. It is, therefore, vital that we understand what industry is doing well in this area and

determine whether this can be replicated in an academic setting This will support the embedding and acceleration of cultural change that the engineering and physical sciences community needs."

The consortium includes the universities of Durham, Lancaster, Leeds and Newcastle, with industrial partners such as Atom Bank, IBM and Stanley Black and Decker.

DISCOVER MORE

northumbria.ac.uk/athenaswan



# Nurturing the next generation of digital talent

Northumbria is on a mission to develop digital talent and enhance skills across the UK, thanks to its membership in a new national coding organisation.

The University has joined The Institute of Coding (IoC) – a group which brings together organisations committed to developing digital talent at degree level and above. The IoC aims to make it easier for people to access higher education and improve their technical abilities – whether that's learning digital skills for the first time or extending already specialist knowledge.

As a founding member of the IoC, Northumbria will specifically focus on bringing together academia and industry to spread digital skills across the UK. This will include partnering with Newcastle and Sunderland Universities to create the North East hub of the Institute of Coding. This will act as a catalyst to develop the region's digital skills

Professor Shaun Lawson, Head of Northumbria's Department of Computer and Information Sciences, said: "Our expertise in working with industrial partners, and in the delivery of degree apprenticeships, places us in an excellent position to help close skills gaps in this sector. This will be of particular benefit to the region, with the creation of the North East hub."

The Institute of Coding is a £20 million government investment, matched by £20 million from partners.
Universities Minister, Sam Gyimah, added: "The Institut of Coding will play a vital role

Universities Minister, Sam Gyimah, added: "The Institute of Coding will play a vital role in ensuring we can generate world-class digital specialists and improve education for everyone"

Turn to page 20-21 to see inside the new £7 million Computer and Information Science building

DISCOVER MORE &

www.instituteofcoding.org

### IN THE MEDIA



Northumbria University NEWS • Autumn 2018



Northumbria uses an international broadcast system that connects the University's academics with worldwide TV news providers looking to interview experts about breaking news stories. Northumbria University News talks to Ariane Bogain, Senior Lecturer in French Politics, who has become a regular on France 24 and other international TV channels over the last 12 months.

Northumbria's Ariane Bogain found herself in high demand by international broadcasters in the run-up to the French elections in 2017, as Emmanuel Macron's battle with Marine Le Pen for the Presidency of France captured the world's imagination.

Her expertise in French politics, and her research into the relationship between Europe and France, saw Ariane interviewed by Sky News, France 24, TRT World, Deustche Welle, and Radio Islam. Following Macron's dramatic victory, Ariane has continued to receive regular requests to provide commentary and analysis on the latest developments in French politics. Alongside her television and radio appearances, she has also written a number of comment pieces for the media including four articles for The Conversation – an online, international news

platform which gives academics the opportunity to write about breaking news and their own research expertise – as well as two articles for Europe Weekly, and one for the European Financial Review.

"It has been a very eventful 16 months for French politics since Macron's election. The number of media requests I've received from international broadcasters has increased enormously as a result," Ariane reflects.

"Initially, I was nervous about being interviewed live on TV, but my confidence has grown, and I now appear on France 24 on an almost weekly basis. I've actually lost count of how many times I've been interviewed live on primetime television.

"This has obviously resulted in a significant amount of TV. radio and media coverage for the University globally and has had



a huge impact in terms of raising my profile as an analyst and commentator on French politics." Ariane's research interests at Northumbria focus on European and French identities, the representation of minorities. terrorism and the French authorities, and a range of related areas. She teaches and lectures in French politics and modern languages in the University's Department of Social Sciences.

She added: "It can be timeconsuming to be so in demand, but it is very rewarding, and it helps put a global spotlight on Northumbria's expertise, the work of our academics, and our courses. I'd absolutely

**DISCOVER MORE** 



### parliamentary

French election: presidential and

**IN FRENCH POLITICS 2017/18** 



· Macron and the mass strikes against transport reform



Brexit, May and Macron



Macron's troubles: fall in popularity, resignation of key ministers, Benalla affair



French Government reshuffle

### Fake or Fortune? Northumbria decides

A Northumbria University scientist helped identify the true artist behind a well-known painting on the hit BBC show Fake or Fortune.

Chemistry lecturer Dr Kate Nicholson joined presenter Fiona Bruce and art dealer Philip Mould to investigate the stunning 18th century portrait of Dido Elizabeth Belle and her cousin Lady Elizabeth, which is on display at Scone Palace in Scotland

The episode addressed questions many art critics have posed over the years - who is the artist behind this beautiful and intriguing painting which has long been rumoured to be by the German artist Johann Zoffany?

The show's producers used Dr Nicholson's forensic techniques as well as evidence of style from other sources to finally put a name to the artist which has been unknown for so long, and confirmed that is was Scottish portrait painter, David Martin.

Dr Nicholson said: "We used a number of forensic art techniques such as x-ray fluorescence, reflectance spectroscopy and gas chromatography-mass spectrometry to allow both the composition of the pigments and the binder to be identified.

"The process - including field sampling and analysis back at the lab - took two days. We are the only group in the country that can be mobile and analyse paintings in situ anywhere in the world. Other places require the sample to be brought back to the lab, but just moving some of these paintings can cost millions of pounds.'

Northumbria's specialism in both the Conservation of Fine Art and in Chemistry means the University has a strong track record of analysing art for conservation. Kate, who has worked at Northumbria since 2015, is currently writing a book called 'Medieval Pigment use in Manuscripts of the British Isles' and has analysed famous works including the Lindisfarne Gospels, during her career.



ABOVE: Dido Elizabeth Belle



### WHO WAS DIDO ELIZABETH BELLE?

Dido was the mixed-race daughter of an African slave Maria Belle and British naval captain, Sir John Lindsay. Maria died when Dido was a young child; it was then that Sir John asked his uncle and aunt, the Earl and Countess of Mansfield to look after Dido. They were already guardians to their niece, Lady Elizabeth Murray and brought up Dido as a free, educated girl on

their estate at Kenwood House, Hampstead.

The portrait in question was painted at Kenwood and features Lady Elizabeth and Dido sitting on a bench together, with St Paul's Cathedral in the background. It was commissioned by Lord Mansfield sometime in the late 1770s or early 1780s at the height of the trans-Atlantic slave trade In recent years, Dido Elizabeth

Belle's incredible story has inspired books and a feature film about her life. As such, the current Lady Mansfield was determined to discover the name of the artist who really painted her.





northumbria.ac.uk/arts

### **NEW PARTNERSHIP TO BOOST ONLINE DEGREE PROGRAMMES**



Northumbria University will be expanding the number of online degree courses it offers after signing a partnership with education specialists Pearson.

Pearson is a market leader in technology-based learning and provides online services to many high-quality universities all over the world

Working with Pearson to develop the University's online distance learning provision will allow Northumbria to provide the best learning experience for students who are balancing other commitments and studying at a

Professor Peter Francis, Northumbria's Deputy-Vice Chancellor, said: "Globally, online distance learning is growing rapidly, and Pearson has a strong track record. The new University Strategy has identified an opportunity to extend our educational offer, to support academic position, brand, and diversify our income streams. Students globally want to study with Northumbria, and a research rich, experientially focused online distance learning portfolio will allow the University to embrace distance learning as a strategic opportunity.

The University hopes to launch at least eight new online programmes over the next five years, covering a range of subject areas where there is high demand for flexible, careerfocussed education.

The first course to be released will be an updated MSc in Surveying in January 2019. The University hopes to then add programmes from the School of Design, Newcastle Business School, Psychology and Computer Science.

Online learners benefit from the same outstanding quality of education as on-campus students provided by staff; with Pearson providing dedicated support to their learning at times convenient to them, fitting their studying around a job or changing personal

#### DISCOVER MORE





### Partnership strengthens Northumbria's presence in Sri Lanka

Students in Sri Lanka can now gain a Business or Banking degree from Northumbria University without leaving their home country, thanks to a new partnership between the University, the Institute of Bankers of Sri Lanka (ISBL) and the Sri Lankan Business Management School (BMS).

The new arrangement allows Northumbria University to recognise an ISBL Diploma as equivalent to the first two years of an honours degree programme – meaning that students who have completed the ISBL Diploma can be fasttracked onto the third year of a Northumbria BSc Business or Banking degree programme.

Students will complete their Northumbria degrees with the Business Management School (BMS) in the Sri Lankan capital Colombo, Northumbria already has very strong ties with the BMS, having worked with the institution for more than 14 years to offer Sri Lankan students degree pathways in business

and management, biomedical science, banking and finance and biotechnology.

With more than 400 students in Sri Lanka already studying on a Northumbria-accredited degree programme through the Business Management School in Colombo, this latest agreement is expected to boost numbers even

Professor Jon Reast, Pro Vice-Chancellor (International) at Northumbria, said: "This development adds another strand to what we can offer students in Sri Lanka, complementing our alreadystrong profile across other sectors including biomedical sciences, biotech, design and

fashion, and financial services. It also reflects our growing reputation as a global university offering an outstanding learning experience for both our UK and international students."

A total of more than 700 Sri Lankan students are currently studying on a Northumbria University-accredited degree programme, either in their home country or in the UK at Northumbria's campuses in Newcastle and London.

**REFLECTS OUR GROWING REPUTATION AS A GLOBAL UNIVERSITY** OFFERING AN **OUTSTANDING LEARNING EXPERIENCE FOR BOTH OUR UK AND INTERNATIONAL** STUDENTS."

"THIS LATEST

**DEVELOPMENT** 

Northumbria University NEWS • Autumn 2018

PROFESSOR JON REAST. PRO VICE-CHANCELLOR (INTERNATIONAL)

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northumbria.ac.uk/nbs



# Research could help end heart-breaking separation of people and pets



Laws banning tenants from keeping much-loved pets in rented housing are being challenged by a Northumbria academic.

UK law currently allows landlords to impose so called 'no pet' covenants on their tenants. Research by Debbie Rook, an animal law and ethics expert from Northumbria Law School, has found that this has left thousands of people in the UK being denied the opportunity to live with their pets. Many are also forced to give away their pets when their circumstances change, and they are forced to move into rented housing where keeping animals is prohibited.

The issue was recently highlighted in the Scottish media when 87-year-old Robert Harvey was told to give up his 10-year old dog Darcie, or face eviction from his care home. He chose to move out of the home even though this meant sacrificing better security and care, and a sense of community he shared

with the other residents in the

Debbie explained: "Many pet owners see their companion animal as part of the family and are devastated at having to give them up for rehoming or euthanasia. Elderly pet owners and those with mental illnesses are especially susceptible as they are more likely to need to move into sheltered accommodation, the majority of which adopt 'no pet' policies.

In a research paper For the Love of Darcie: recognising the humancompanion animal relationship in housing law and policy, Debbie shows how society benefits from the human-companion animal relationship in the form of healthier, less isolated people with better social networks. Yet she argues that in the key area of housing, the law does nothing to protect or even recognise this

A petition has now been started that draws heavily on Debbie's research, to call on the Scottish Parliament to debate the need for legislation to ban the use of 'no pet' covenants in residential leases and care homes. There are strong legal arguments in human rights and consumer rights law to support legislation that prohibits the use of 'no pet covenants in residential leases. Such legislation exists in other countries including France and parts of Canada to prohibit the use of 'no pet' covenants, but also seeks to protect the rights of landlords and other tenants by including exceptions, for example where pets are a nuisance or cause severe allergic reactions. It also allows additional deposit payments to

cover the cost of any damage to property caused by the pet.

Debbie added: "Had Mr Harvey lived in France, the housing laws would have protected him from this stressful event. The petition to help Mr Harvey will help get an important issue debated in the Scottish Parliament. If a law is passed in Scotland, it will set a precedent for the rest of

DISCOVER MORE 📈

the UK so anyone who wants to

keep pets and people together in

housing should sign the petition

wherever they live in the UK."



**"MANY PET OWNERS SEE THEIR COMPANION ANIMAL AS PART** OF THE FAMILY AND **ARE DEVASTATED AT HAVING TO GIVE THEM UP FOR REHOMING OR EUTHANASIA.**"

DEBBIE ROOK

Northumbria University NEWS • Autumn 2018

taking place across campus with more to be announced soon.

New buildings and spaces set to open next year, include

architecture studios.

an ambitious and innovative extension of the University's

Grade II listed Sutherland Building to create world-class new

The last 12 months has been particularly eventful with the

completion of the £7m Computer Science, the opening of

Student Central (see pg. 3 for photos), the creation of a art

gallery on campus (see pg. 32) and a new 24/7 computing space being built. These are just a few of the developments



Inside the new computer building

and give UK an edge in the global digital economy, with Northumbria set to play a leading role.

stunning views across campus,

thanks to the circular design and large glass windows.

Entrance to the stylish new

building is via a bright glass

atrium that has already been

used for events including this

summer's Great Exhibition

of the North. The building



northumbria.ac.uk/ buildingabetternorthumbria



### Internship scheme does the business

A paid internship scheme, run by The Business Clinic at Northumbria, with funding from Santander Universities UK, is providing crucial support to small businesses across the North East - and exciting career prospects for students.

Santander Universities UK's SME Internships Programme offers Northumbria students and graduates the opportunity to secure paid summer internships in small to medium sized businesses. Designed to boost enterprise, employability and innovation, the scheme has funded placements for 85 graduates with a range of businesses on two to 10-week placements over the summer in areas including strategic operations, brand development, digital marketing, social media, logistics and IT.

Nigel Coates, Business Clinic Director at Northumbria, said: "The purpose of the programme is to help people and businesses prosper. Our students and graduates secure valuable work experience, while employers benefit from fresh perspectives, new ideas and insights. Santander's funding has helped more than 160 students complete internships and impressively 78% of placements resulted in an offer of employment last year.

Matt Hutnell, Director of Santander Universities UK, commented: "Santander is committed to supporting higher education as well as local communities across the UK. We're delighted that our SME internships programme continues to be successful in both supporting local businesses and providing students the opportunity to get to know the business environment and gain some fantastic experience.

Mark Copsey, director at Red Kite Innovations, a Yorkbased business training and development consultancy, recruited intern Duncan Chapman, 22, from Wetherby, to work in the business on a 10week placement this summer

Explaining how impressed he was, Mark said: "This is our first year working with a Northumbria intern, and I would recommend the programme to others for proactive, enthusiastic and highly skilled students. I've been blown away by the energy, enthusiasm and ideas Duncan is bringing to the business.

Duncan added: "Working for Red Kite Innovations has been the perfect experience of transitioning from student life into the world of work. I'm gaining valuable experience and making great contacts along the way, and of course, the income is helping me save up to fund some travelling! I'd highly recommend

Newcastle Business School's pioneering Business Clinic is proving extremely popular with students and clients alike. It allows students to put theory into practice, working in a real business and providing valuable support to organisations in a range of areas from strategic operations and brand development to digital marketing, social media strategy, logistics and IT.



northumbria.ac.uk/businessclinic



"THIS IS OUR **FIRST YEAR WORKING WITH A NORTHUMBRIA INTERN, AND I WOULD RECOMMEND** THE PROGRAMME TO OTHERS FOR PROACTIVE, **ENTHUSIASTIC AND HIGHLY SKILLED** STUDENTS."

MARK COPSEY, **RED KITE INNOVATIONS** 

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### How 'dubious' industries re-invent themselves

Northumbria University NEWS • Autumn 2018



(L-R) DIEGO CORAIOLA. ANDERS SORENSON, STEPHANIE PANE ACADEMY MANAGEMENT, DR NICHOLAS WONG

Award-winning research by a Northumbria academic is providing a fascinating insight into how 'morally questionable industries are attempting to rewrite their own history to boost public support.

Dr Nicholas Wong from the Newcastle Business School compares the recreational marijuana industry in Canada, crypto currency and private military companies, examining how they've all tried to use history and narrative to persuade the public that their existence isn't morally questionable.

His paper - entitled Rhetorical History and the Legitimation of New Industries - has been researched and written in partnership with an international team of scholars from Canada, Denmark and the UK. Their work has just been awarded the John F. Mee Award for the 'Paper with Best Management History Division Contribution' from the Academy of Management. Dr Wong said: "Our paper examines how contested industries of dubious morality have used rhetorical history as a tool to reinvent their identities and change perceptions of their practices, using case studies from recreational marijuana industry in Canada; Bitcoin and crypto currency; and for-profit private military companies such as Blackwater in the US." The team behind the paper, alongside Dr Wong, are: Andrew Smith from University of Liverpool Management School; Diego Coraiola from University of Alberta in Canada; Anders Sorenson from Copenhagen Business School in Denmark and Ian Jones from University of

Liverpool Management School.

### Law School behind international initiative to improve forensic science

The impact of Brexit on UK forensic science and the reliability of forensic evidence in courts, were just two of the topics tabled by Northumbria academics at a major international conference.

The European Academy of Forensic Science 2018 Conference in Lyon, brought together over 800 global participants, with the aim of improving international problem solving and strategic thinking across the fields of law,

science, technology and politics. Law professor, Tim J Wilson, of Northumbria's Centre for Evidence and Criminal Justice Studies (NCEJS) was one of only two British members of the Conference's Scientific Committee.

Professor Wilson led a discussion on how criminal justice is being affected internationally by political issues such as Brexit and wider economic and technological changes, including police budget cuts and the increased use of machine learning

The session looked at how Brexit could reduce the availability of forensic science for UK police and the courts by compounding what Professor Wilson describes as 'existing and severe budgetary and organisation problems'

Emma Piasecki from Northumbria's Law School, and Sophie Carr from the Department of Applied Sciences, also discussed the reliability of forensic science

They jointly presented a paper suggesting that what a forensic scientist says in evidence in court cannot be taken on blind trust,

and proposing that lawyers need to understand more about how tests are carried out, so they can understand any limitations in the

SCIENCE CONFERENCE

PROFESSOR TIM WILSON PRESENTED AT THE INTERNATIONAL FORENSIC

Deputy Director NCECJS, Adam Jackson, also spoke about one of the most difficult challenges facing criminal justice; how to maintain a balance between the law of evidence and privacy rights when dealing with cyber-related crime and gathering evidence from digital devices such as mobile

The next European Academy of Forensic Science conference is scheduled for Stockholm in 2021, with further contributions from

DISCOVER MORE northumbria.ac.uk/law

ARE UNCERTAIN, **CONTESTABLE OR ERROR-PRONE.WHAT** A FORENSIC SCIENTISTS SAYS IN EVIDENCE CANNOT BE TAKEN ON

"EVEN FORMS OF

**EXPERT EVIDENCE** 

RELIABLE LAWYERS

**JUDGES AND JURIES** 

**MAY INCORPORATE** 

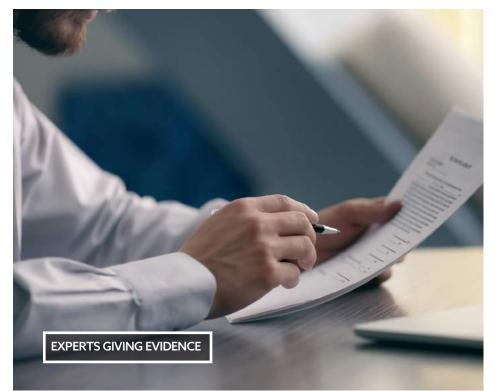
**ASPECTS THAT** 

**WIDKEY REGARDED AS** 

**PROFESSOR TIM WILSON** 

**BLIND TRUST.**"

### Academics share their views on internet regulation



A team of experts from Northumbria Law School have given evidence to a high-profile inquiry examining the regulation of the internet in the UK.

The Northumbria Internet and Society Research Group (NINSO) submitted evidence to the House of Lords Communications Committee, to support their ongoing discussions around online regulation.

The Committee will decide if the way the internet is regulated in the UK – particularly around inappropriate content and protecting users online - needs to change.

Dr Guido Noto La Diega from Northumbria Law School leads the NINSO group. He said: "This is a hugely relevant area of discussion and a highly complex topic. We've offered detailed views, covering everything from legal liabilities and user standards to what happens if the UK leaves the EU. Our evidence will be taken into consideration alongside evidence from other influential

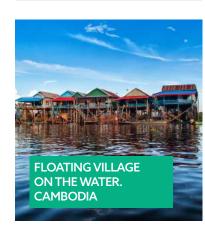
bodies including the NSPCC and three of the UK's largest Internet Service Providers; Sky, Virgin Media and TalkTalk.

The outcome of the inquiry is expected towards the end of 2018.

The NINSO group brings together lawyers economists, business scholars, social scientists, architects, computer scientists, engineers and students from Northumbria who have a research interest at the intersection of internet and society.



### **Supporting STEM study** in Cambodia



Academics from Northumbria are working with the Cambodian government to help encourage students to study STEM subjects.

The 1970s Cambodian Civil War led to an exodus of educated people from the country, which in turn, has led to fewer students today choosing STEM subjects than elsewhere in the world. The government has called on support from the global scientific community to address it.

Northumbria's Solar Physics research group organised an astrophysics conference in Siem Reap, where the Cambodian Minister for Education addressed attendees about the problems facing the country. As a result, the University is now exploring an undergraduate scholarship scheme that could enable highperforming maths and science students to study at Northumbria

The Minister said: "The Khmer Rouge stripped Cambodia of many things, including doctors, scholars, engineers and political figures. We suffered a complete brain drain. We need more engineers... We need network developers... We need doctors... We need STEM.

Dr Eamon Scullion, who coorganised the conference, is now involved in detailed talks around how UK universities can support STEM study in Cambodia. He said "This was a hugely successful conference, bringing together senior scientists, researchers and students from across Asia, North America and Europe.

"We were delighted to have the chance to talk directly with the Minister about how we can help support his ambition to rebuild the country's expertise through the education of its next generation."

DISCOVER MORE

helping others meant he was eligible to apply for a prestigious Chevening scholarship. He was overjoyed to be chosen for the scheme, and to be accepted onto the MSc in Disaster Management

Svrian.

CARE International.

country.

Farouq Aldandashi has just

completed Northumbria's

MSc in Disaster Management

and Sustainable Development

The 27-year-old spent almost

seven years volunteering with

the Red Cross in the war-torn

city of Homs, helping his fellow

Syrians in extremely challenging

circumstances. He then travelled

International Medical Corps and

experiences and develop himself

further, but says his opportunities

to Turkey where he joined the

He was keen to build on his

were limited because he was

However, his background

and Sustainable Development

course at Northumbria.

Chevening is a UK government award programme aimed at developing global leaders. The awards are funded by the Foreign and Commonwealth Office with scholars personally selected by British Embassies and High Commissions throughout the

completes Master's degree

Syrian student who 'lost everything'

A promising student displaced from Syria says he can walk proudly now he has

his Master's degree, after losing everything when he was forced to leave his home

Farouq said: "Though I have lost everything in my life, I will not lose my ambition. I'm here to show people that Syrians are just like everyone else. Amongst all the chaos I've faced, I feel I have achieved. I can walk proudly with a master's degree from the UK and feel that I'm now well educated."

Northumbria University is a partner of Chevening and supports the scholarship programmes.

Northumbria's International Partnerships Manager, Alejandra Vicencio, said: "I have experience northumbria.ac.uk/geography

of assessing applications for Chevening scholarships and they are not easy to get. They look for future leaders and only want to award the scholarships to the best of the best, so we are very proud that Farouq chose to come to Northumbria. I am very glad to see that someone coming from this situation has been able to take advantage of this opportunity.

Northumbria's MSc in Disaster Management and Sustainable Development programme is supported by the Disaster and Development Network, preparing students to plan for, and tackle, real-world disaster situations and humanitarian crises

"I WAS WORKING FOR THE RED **CROSS IN** THE MOST COMPLICATED **AND COMPLEX** MAN-MADE **HUMAN CRISIS** IN HISTORY, ALL WHILE STUDYING **FOR A DEGREE."** 

FAROUO ALDANDASH

Northumbria University NEWS • Autumn 2018

**FAROUQ ALDANDASHI** 



## Fracturing communities and economies



**"OUR STUDY IS IMPORTANT BECAUSE WE NOT ONLY SEEK TO UNDERSTAND** THE ACTUAL SOCIAL, **ECONOMIC AND ENVIRONMENTAL IMPACT OF HYDRAULIC FRACTURING-SOMETHING THAT HAS NOT BEEN ADEQUATELY** STUDIED IN THE UK-**BUT ALSO THE SOCIAL MEANINGS AND INTERPRETATIONS OF THE FRACKING** PROCESS."

**PROFESSOR PAUL STRETESKY** 

Hydraulic fracturing, or 'fracking' as it is more commonly known, is a highly controversial technology for extracting oil and gas from the environment.

While its impact on the natural world has been well documented in the media, the broader consequences for affected communities has yet to be fully explored – until now.

Northumbria will lead the first UK study of its kind into the social and economic impact of fracking after being awarded a share of £480,000 from the Natural Environment Research Council (NERC)

Despite widespread opposition from anti-fracking groups, who have described hydraulic fracturing as a backward step from renewable energy sources and a serious risk to public health and the natural environment, the technology has been in heavy use across North America over the last decade. It is in a much earlier stage of development in the UK, but it is currently being actively encouraged by the UK Government as a means to meet the challenge of decarbonisation – reducing the emissions per unit of electricity generated across the country. However, critics have warned the UK that while fracking

may produce national and economic benefits by reducing the price of energy and increasing national security, it may also create negative outcomes in those communities where extraction takes place.

Led by Northumbria's Professor Paul Stretesky, the University's research will focus on this very subject in a project exploring the 'social construction' of unconventional gas extraction Speaking after the funding announcement, Professor Stretesky said: "We are very excited to receive this funding from NERC because it will allow us to better understand how and why hydraulic fracturing can alter community behaviour.

"Our project is inherently interdisciplinary, and we are eager to work with and collaborate with colleagues from a variety of disciplines around the

"Our study is important because we not only seek to understand the actual social economic and environmental impact of hydraulic fracturing

-something that has not been adequately studied in the UK-but also the social meanings and interpretations of the fracking process.

Professor Stretesky will work in collaboration with Anna Szolucha, a postdoctoral research scholar who specialises in social movements who will be joining Northumbria in 2019. Other members of the project team include Damien Short, a human rights scholar from University College London, and Laurence Stamford an engineer from the University of Manchester.

The team plan to investigate the impact from both the technical process of fracking as well as its social interpretations. Their collective aim is to answer key questions surrounding fracking and generate findings that will stimulate a more informed and thoughtful debate among communities, statutory bodies and policy-makers, about both the benefits and burdens of hydraulic fracking.

NERC is the driving force of

the frontier of environmental science by commissioning new research, infrastructure and training that delivers valuable scientific breakthroughs. It is part of UK Research & Innovation, a new organisation that brings together the UK's seven research councils, Innovate UK and Research England, to maximise the contribution of each council and create the best environment for research and innovation to flourish. The vision is to ensure the UK maintains its worldleading position in research and innovation.

science in the UK, advancing

Professor Stretesky is a lecturer in Northumbria's Department of Social Sciences, which offers a range of courses focusing on major issues affecting society, the economy, and our environment.



### **KEY FACTS**



The fracking company drill poreholes deep into the ground to hit the rock containing shale.



A mixture of water, sand and chemicals is injected at high pressure into the boreholes.



This fractures the rock, and pushes the natural gas and contaminated waste water out.



In the process, 4-8% of methane escapes into the atmosphere.



The leftover contaminated waste water is taken away for treatment.



Once all the gas has been fracked. a new borehole is drilled and the process begins again.

northumbria.ac.uk/physics



#### **CLIMATE CHANGE**

Northumbria University NEWS • Autumn 2018

Understanding the balance petween carbon delivery and loss from the ocean is crucial for projections of global climate change. The Arctic Ocean plays a pivotal role in the storage and cycling of carbon, through the uptake of CO2 by marine plants and the export of carbon to the deep ocean. This effectively disconnects the carbon from the atmosphere. The ocean also plays host to bacteria and other biological and physical processes, such as solar

radiation, which can release carbon back into the atmosphere

The CACOON project will take measurements to create a model that can project the impact of thawing permafrost, increasing freshwater runoff and increasing carbon.

### Research investigates the impact of a thawing Arctic

Vital research into how climate change is affecting the Arctic Ocean is being led by experts from Northumbria.

The globally significant work will examine the impact of thawing ice and soil and the subsequent release of frozen carbon into the Arctic. The Arctic is particularly carbonrich, with some of the world's oldest carbon held in frozen ice or soil - or permafrost. The research will investigate what happens as that permafrost thaws and more carbon enters the ocean

The quantity of carbon in permafrost far exceeds the amount held in forests or in the atmosphere, so any increases in carbon released from the Arctic is of huge global concern, particularly for climate change. Dr Paul Mann from

Northumbria's Department of Geography and Environmental Sciences is leading on the €800,000 CACOON project; Changing Arctic Carbon Cycle in the Coastal Ocean Nearshore. His team will study areas

where freshwaters from rivers meet the ocean. Any changes in freshwaters are significant. because when this water meets the ocean, it can throw marine ecology into a different state of balance. This can also cause changes in the amount of greenhouse gases emitted into the atmosphere, from the

Dr Mann explained: "When people think of big carbon stores they usually consider forests or the atmosphere, yet these pools are dwarfed by the amount of carbon in soil, most of which is frozen. But as the Earth warms up, it is defrosting.

"The Arctic Ocean is relatively small and has a huge amount of freshwater input from rivers, making it much more susceptible to impact from changes in freshwater content." Dr Mann added: "Thawing permafrost can also release previously frozen bacteria.

Siberia was hit by an outbreak of anthrax in 2016, believed to stem from bacteria in the thawed carcass of a reindeer that died in the plague. This could become much more prevalent in future, so it is imperative we have a better understanding of the impact permafrost thaw might have.'

The project is part of the £8 million Changing Arctic Ocean Research programme, funded by the UK Natural Environment Research Council and Germany's Federal Ministry of Education and Research. It is one of twelve projects seeking to better understand, and predict, changes to the Arctic

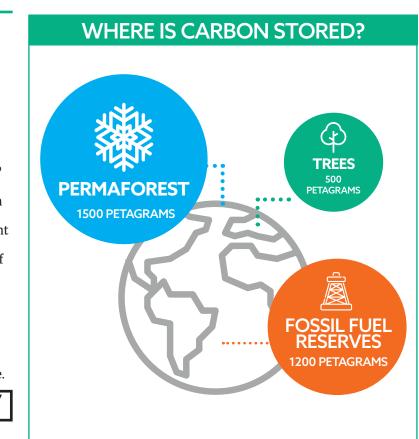
Dr Mann's work falls under Northumbria's Extreme Environments research theme.

DISCOVER MORE

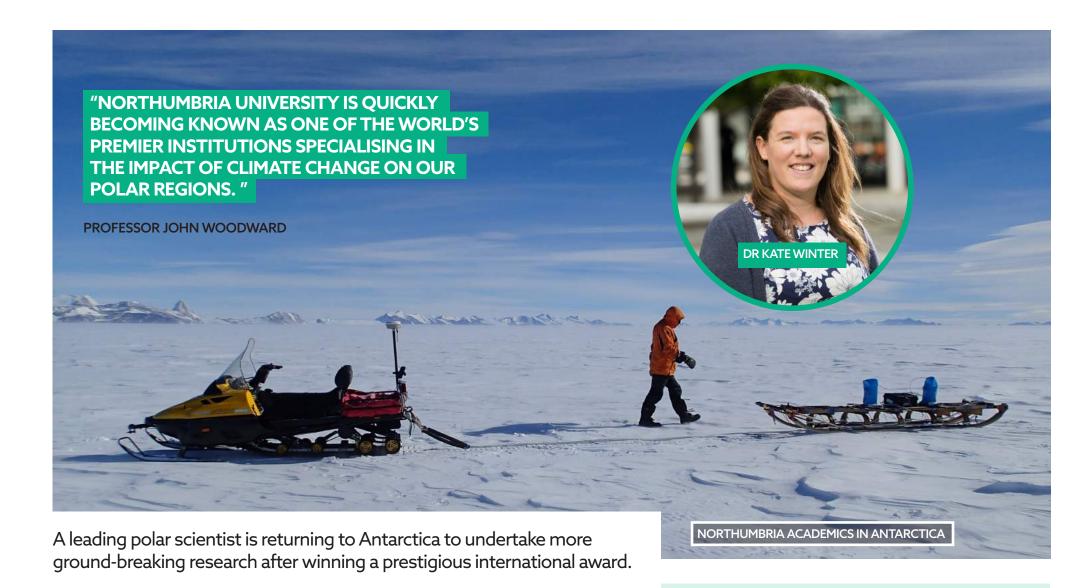
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"WHEN PEOPLE THINK OF BIG CARBON **STORES THEY USUALLY CONSIDER FORESTS** OR THE ATMOSPHERE, YET THESE POOLS ARE **DWARFED BY THE AMOUNT OF CARBON IN** SOIL, MOST OF WHICH IS FROZEN. BUT AS THE EARTH WARMS UP, IT IS DEFROSTING."

DR PAUL MANN, DEPARTMENT OF GEOGRAPHY AND ENVIRONMENTAL SCIENCES



## Breaking new ground in glacier research



Dr Kate Winter, from Northumbria's Department of Geography and Environmental Sciences, is only the second ever woman to win the €150.000 Baillet Latour Antarctica Fellowship. It provides young scientists with the opportunity to conduct original research in the cutting-edge, zero-emission Princess Elisabeth Antarctica research station. Dr Winter uses X-ray-like

ice-penetrating radar and remote sensing technology to understand what is happening underneath the Antarctic's ice sheets. Her work made worldwide headlines earlier this year when she discovered three huge unknown canvons and mountain ranges buried near the South Pole. The largest canyon was the equivalent size of New York's Manhattan Island.

The Fellowship will fund two trips to Antarctica. Dr Winter will travel there in December and spend up to two months examining how the ice sheets pick up sediments and transfer them towards the coast. She will then return at the end of next

year to repeat the same tests to see how climate change is affecting the Antarctic region.

Dr Winter said: "The research I conduct over the next two years, thanks to this Fellowship, will enable me to establish myself in an internationally competitive field, allowing me to lay the foundations for a career in scientific research. It will give me the unique opportunity to explore the important science questions that early career researchers are often unable to ask."

Professor John Woodward. Acting Pro-Vice-Chancellor for Engineering and Environment, is a fellow glaciologist who is also preparing for a trip to Antarctica. He will spend three months there in 2020 leading field surveys to find the best sites to drill for historic evidence of any former collapse of the ice sheet.

He said: "Northumbria University is quickly becoming known as one of the world's premier institutions specialising in the impact of climate change on our polar regions.

"While Kate is in the early stages of her research career, her work is already attracting global attention for its significance and impact. We are delighted that her efforts have been recognised with the awarding of this Fellowship, which will provide her with excellent opportunities to take

her research to the next level." Both Dr Winter and Professor Woodward are members of Northumbria's renowned research group specialising in Cold and Palaeo Environments. Researchers in this team investigate the ways in which climate change is, and has, affected how we live today Earlier this year, it was announced that the University would receive £754,000 to investigate how and when Antarctica's massive Thwaites Glacier might collapse.

DISCOVER MORE

# This year's model

Northumbria is known as a global centre of excellence for research into cold and palaeo environments.

Our glaciology experts are developing a new modelling tool that predicts how ice sheets will adapt and behave in different environments, unlike many existing tools that focus on the past to model the historical behaviour of ice sheets.

Hilmar Gudmundsson, Professor of Glaciology, said: "The model we are developing has proved particularly good at calculating and recalculating the behaviour of large ice sheets in Greenland and Western Antarctica. It is already underpinning the work of groups in Germany, Denmark and the UK, demonstrating

the strength of our ice flow modelling expertise." Christine Hvidberg, Professor

of Ice Flow Modelling at the University of Copenhagen, came to Northumbria to learn more about it and said Northumbria's model "will prove invaluable for our own further research into Greenland's ice sheets.



northumbria.ac.uk/

THE RIVER TYNE AND IT'S BRIDGES

# **THE TYNE BRIDGE IS**

### **BIRTHDAY TYNE FOR ICONIC BRIDGE**

Bridges are more than iron and steel. They help bridge geographical and cultural divides, and bring people and places together.

This October, Northumbria staff and students teamed up to celebrate the birthday of one of the UK's most famous bridges – the iconic Tyne Bridge – on the 90th anniversary of the date when the structure was completed. Inspired by the bridge's birthday, students and academics from a range of departments including Humanities, Geography, and Engineering, came together to share their expertise in a unique series of events to mark the occasion.

Hannah Martin, a PhD candidate in Historical Geography, was the lead organiser of the 'Bridging the Tyne' event, which featured walking lectures from a host of specialists from Northumbria, including

historians, writers, artists, and geographers.
"It has been amazing to be involved with
Northumbria's official commemoration of the 90th anniversary of the Tyne Bridge," Hannah said. "The event uncovered histories of central Newcastle that even local residents were not familiar with and which proved to be overwhelmingly interesting and relevant to modern life in Newcastle.

"The social media archive we created as part of the event, #WeAreTheTyne, was also very popular and proved to be an innovative way of getting the Newcastle public together as an online community – sharing experiences and memories of life on the iconic bridges

Professor Ben Brock, Head of the Department of Geography and Environmental Sciences, added: "The Tyne Bridge is a Tyneside icon and we were thrilled to be involved in the commemoration of the 90th anniversary of its completion. The Tyne Bridge links communities in Newcastle and Gateshead and as such is symbolic of research in the Department of Geography and Environmental Sciences, which seeks to understand the experiences of different social groups, particularly those at the margins of society, and in how collective memory is represented in city landmarks."



More than 90 female civil engineers from across the UK gathered at the base of the Tyne Bridge to honour one particular lady who was involved in its construction.

The 90th anniversary offered the perfect opportunity to celebrate the life and work of Dorothy Buchanan, the first female member of the Institution of Civil Engineers (ICE), and a member of the Dorman Long team that worked on the Tyne Bridge in the late 1920s.

Dorothy was a pioneer of her time, joining the ICE in 1927. In addition to her contribution to the Tyne Bridge, she also served as part of the team for the Sydney Harbour Bridge (this project was completed four years later than the Tyne Bridge, which was allegedly used as a trial run for Sydney), and Lambeth Bridge in London. Thousands of women have since followed in her engineering footsteps to carve out successful careers, and the Institution of Civil Engineering now has more than 8,000 female members, worldwide.

The 'Women in Engineering' event, which was organised by the ICE and Northumbria University, also saw the launch of a longitudinal research project to track the career progression of 200 female and 200 male civil engineers at three-year intervals. The survey aims to gather insights into how women and men progress in the profession, in different ways.

Regional director of the ICE North East, Penny Marshall, said: "We were delighted to celebrate not only the Tyne Bridge's 90th anniversary, but also Dorothy's contribution to the creation of such an iconic structure. Talking about female engineers from the past and the present helps young women today see that STEM careers are not only achievable, but also desirable."

Vikki Edmondson, Senior Lecturer in Civil Engineering at Northumbria, added: "Women have carved out successful careers in civil engineering for decades now. We wanted to celebrate the impact that female engineers make in the field and reaffirm that engineering is a profession open to anyone, regardless of gender.

### TYNE FOR A CONVERSATION

Read the joint article by Northumbria's Hannah Martin and Dr Laura O'Brien's for The Conversation: Newcastle's iconic Tyne Bridge: how it became a symbol of the city's changing fortunes, by scanning this:





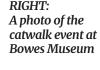
One of Chris catwalk photographs

**INFOGRAPHIC** how long Moore has been working in the fashion industry photographing Northumbria's Graduate Fashion Week catwalk show

Northumbria University NEWS • Autumn 2018

Moore was awarded honorary degree from

the number of photos on show at the new Catwalking





Renowned fashion photographer Chris Moore, who has covered catwalk shows all over the world, including those by Northumbria University students, has been honoured in a new exhibition of his work.

men's design at Ralph Lauren, in

New York. The photos taken by

Moore of her graduate collection

were among those shown at the

exhibition preview. Reflecting on

her memories as a Northumbria

student, Sasha said: "We were

very privileged at Northumbria

first exposure to the 'industry'

and his photos would help build

our portfolios and profiles of

been seen through the lens of

someone with his profile, status

what was to come. To have

to have had Chris photograph our

work. For most of us this was our

Over the last 60 years, Moore has photographed collections by world-famous designers, including Balenciaga, Dior, John Galliano, Chanel, Yves Saint Laurent, Giles Deacon and Vivienne Westwood. A new exhibition at The Bowes Museum showcases 230 of Moore's original fashion photographs, alongside a selection of 40 catwalk outfits and accessories, including designs by Northumbria University Fashion graduates.

Newcastle-born Moore has a strong link with Northumbria. He has photographed the work of every final year Fashion Design students at the annual Graduate Fashion Week catwalk show in

London since 1991. He has also visited the University to meet and inspire students on several occasions. Most recently, in 2013, he was awarded an honorary degree by Northumbria for his creative contribution to the world of fashion.

To celebrate Moore's links with the University, his images of Northumbria Fashion Design graduates' collections from the last 27 years were shown alongside garments from this year's graduates at the exhibition preview. Representatives from eading fashion houses attended the event, giving Northumbria an opportunity to showcase the work of its talented alumni and highlight what they have gone

on to achieve since Moore first and creative eye was an amazing captured their work on camera. start to our careers and for that, we owe special thanks." Sasha Kelly graduated from Northumbria in 1993 and is now Senior Vice President of

Northumbria's Fashion Design BA (Hons) course has been running for more than 60 years and is renowned for producing high-quality, industry-ready graduates. Many have gone on to enjoy successful careers at brands and agencies across the globe, including Louis Vuitton, Ralph Lauren and Nike. Senior Lecturer, Emma Jane Goldsmith, said: "The BA Hons Fashion course is steeped in history. The course trains graduate designers to be not only creative but also to be adept at understanding the craft and construction of Fashion.

"The exhibition celebrates the special relationship between The Bowes Museum, Chris Moore and Northumbria University's Fashion programme."

**CATWALKING:** Fashion through the Lens of Chris Moore is open to the public until 6 January 2019. The exhibition expands on the book Catwalking: Photographs by Chris Moore, published by Laurence King, with words by Alexander Fury, an awardwinning fashion journalist and





# Giant leap for Girl Kind

The experiences of girls growing up in the North East were shared with the public during a celebration event at Northumbria University, marking the International Day of the Girl.

Organised by Dr Sarah Ralph of Northumbria University and Dr Sarah Winkler-Reid of Newcastle University, the event was the culmination of months of workshops and events, involving girls from across the region.

The activity took place as part of the Girl-Kind North East project, which aims to provide a forum for girls to share their thoughts, feelings and ideas about growing up in the North East. This is the second year the Girl-Kind project has taken place, coinciding with the UN International Day of the Girl on 11 October.

This year's event attracted attention from public figures and politicians, with Lisa Hogan, Chief Constable of North Yorkshire Police and former head of the BAWP (British Association of Women's Policing) and

Sheriff and Deputy Lord Mayor of Newcastle, Councillor David Cook, both attending.

Both Dr Ralph and Dr Winkler-Reid conduct research on girls' lives and growing up in Britain. Girl-Kind North East is funded by the UK Economic and Social Research Council (ESRC), and Northumbria University. Dr Ralph, Senior Lecturer in Media and Cultural Studies, said: "Feedback from last year showed

us how important the project was as a space where girls felt valued and acknowledged for what they had to say. The challenges faced by young women growing up has received increasing media attention in recent months. But what is rarely heard is what girls themselves have to say about their lives. This is what Girl-Kind North East is all about.

The event closely followed the publication of the Growing up North report – a yearlong project by the Children's Commissioner for England which puts children at the heart of discussions about Northern regeneration.

Sarah Winkler-Reid, Lecturer in Social Anthropology at Newcastle University, added: "We welcome the 'Growing up North' report which mirrors much of what we have found working with girls in the North East. The report centralises young people's voices and highlights the pride they feel in where they live, as well as the challenges and inequalities they experience. We have also found that growing up as a girl profoundly shapes these experiences. Girl-Kind North East has been created to

provide a forum for girls to share their thoughts, feelings and ideas about growing up in the North East, and offers a unique opportunity for us to listen to their struggles and celebrate being a girl in the region."

In addition to the event at Northumbria, the Girl-Kind project also partnered with the Tyneside Cinema in Newcastle to present a special screening of the 2017 animated drama The Breadwinner. This was followed by a panel discussion about the film in the context of Day of the Girl and the Girl-Kind project.

Find out more about the Girl-Kind North East project by following on Twitter: @GirlKindNE and Instagram: girl.kindne



THE CHALLENGES FACED BY YOUNG **WOMEN GROWING** UP HAS RECEIVED INCREASING MEDIA ATTENTION IN **RECENT MONTHS. BUT WHAT IS RARELY HEARD IS WHAT GIRLS THEMSELVES HAVE TO SAY ABOUT THEIR LIVES."** 

DR SARAH RALPH **NORTHUMBRIA UNIVERSITY** 



#### Two of the forty seven pieces chosen for the Woon Gallery of Asian Art



Northumbria University NEWS • Autumn 2018

THE WOON GALLERY OF ASIAN ART AND ITS COLLECTION WILL INSPIRE AND **ENRICH STUDENTS, AND PROVIDE REAL IMPACT ON RESEARCH, TEACHING AND** SCHOLARSHIP FOR NORTHUMBRIA."

MR WEE TENG WOON

# World-class art on campus

A gallery boasting one of the world's most unique collections of Asian and contemporary art is now open on Northumbria's campus.

The Woon Gallery of Asian Art, which includes depictions of the Buddha from different cultures and periods, as well as contemporary pieces by artists such as Andy Warhol, Damien Hirst and Pablo Picasso, opened its doors this summer.

It has been created thanks to a generous donation from the Woon Brothers Foundation and is the latest chapter in the University's long, successful and ongoing relationship with retired Singaporean lawyer and Northumbria alumnus, Mr Wee Teng Woon, and his brothers.

Each item in the collection has been selected for its contribution to the understanding and

application of craft and making, as well as the relationship of Buddhist art to culture and religious belief, practice, and devotion. In selecting items from the Woon Foundation Collection, Northumbria has specifically chosen depictions of the Buddha from a variety of different time periods, to bring a fresh perspective on the interpretation of Asian and Buddhist Art.

Together with the contemporary pieces by Picasso, Warhol and Hirst, the artworks will be used as an education and research resource and will support the city of Newcastle's Cultural Strategy, offering public access to unique items of artistic and cultural significance. Professor Andrew Wathey CBE, Vice-Chancellor and Chief Executive at Northumbria, said: "The Woon Gallery of Asian Art is a new dynamic resource for teaching, research and public engagement at Northumbria, further positioning the University at the heart of the cultural sector in the North East of England – and as a global destination for engaging with world-class art."

DISCOVER MORE

northumbria.ac.uk/woonprize

this year's £20,000 Woon Foundation Art Prize. She was awarded first prize at a special event at Northumbria's Gallery North following the opening of the new Woon Gallery of Asian Art next door. She will receive a £20,000 fellowship, which includes 12-month studio space, mentoring and a final exhibition, with catalogue. There were also three generous runner-up prizes announced, including a £9,000 second prize, which went to Rebecca Thomson from Glasgow School of Art,

and a £6,000 third prize which

Kara Chin is the winner of

will be split between students Isaac Moss and Sebastian Sochan.

Delivered jointly by Northumbria University and BALTIC Centre for Contemporary Art, the Woon Foundation Prize is one of the UK's most generous prizes for artists and has a total value of more than £40,000. Previous winners include the artist Holly Hendry who has gone on to achieve national acclaim. Last year's first prize winner was the artist Joy Labinjo who acted as one of the four judges for this year's prize and helped choose the 10 finalists.

### Creative collaborations celebrated



After launching in 2016, the Creative Fuse North East project has provided training, funding and support for small businesses in the region while exploring the value of collaboration between creative digital design, IT businesses, and all five North East universities. Northumbria University News takes a look at the project's many success stories.

The two-year Creative Fuse project, which is now drawing to a close, is a partnership between Northumbria, Newcastle, Durham, Sunderland and Teesside universities. Funded by the Arts and Humanities research Council (AHRC), Arts Council England and European Regional Development Funds, Creative Fuse has conducted research into the Creative, Digital and IT sector landscape in the North East and has encouraged businesses to share best practice and adopt new, innovative ways of working. The aim has been to help the sector become more resilient and encourage growth, creating more and better jobs for the region. The project has also explored how skills in the creative and tech industries could be shared more widely to encourage innovation in other sectors. The Northumbria team involved in Fuse, led by Mark Bailey and a team from the School of Design, has developed innovationreadiness programmes delivered to over 50 SME's and led a variety of Innovation Pilot projects. Key projects over the last two years include:

DISCOVER MORE

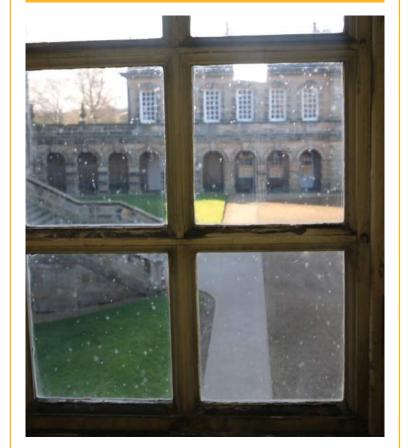
creativefusene.org.uk



### **#WHATDOYOUSEE?**

This project saw a group of Illustration students from Northumbria University produce a series of short, illustrated stories challenging the stigma around homelessness. The stories were compiled into a graphic anthology, with a social media campaign entitled #WhatDoYouSee? running alongside it. The project was a collaboration between Northumbria, the charity Fulfilling Lives, Oasis Aquila Housing, and design company Roots

### **HERITAGE HUNTER GATHERERS**

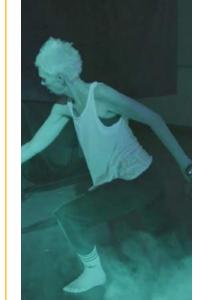


Working in collaboration with Durham University, The National Trust and design company Consult and Design, this project explored how the experience of visitors to heritage sites can be improved through digital technology and resources. Using the National Trust site of Seaton Delaval Hall, as well as Durham's lost North Gate prison, as test-cases, the team is currently developing a platform to increase engagement and support historic and cultural heritage sites, museums, and other attractions. They aim to do this by creating a digitally enabled, multisensory visitor experience system. Some of the results already achieved through the project include a 3-dimensional digital reconstruction of the North Gate prison a building which was taken down in 1821) and a video of Seaton Delaval Hall's East Wing during its time as a WWII Italian and German Prisoner of War camp.



#### **NEOne CREATIVE**

This early-stage online platform was designed to help independent and freelance professionals across the region collaborate and communicate with each other. The project team began by creating a set of profiles to help independent professionals understand themselves and their needs more thoroughly. The project also involved academics from Newcastle University.



### NORTHERN DANCE

This project combined interaction design, dance, animation and Visual FX, and fine art to explore and develop motion-tracking apps, enabling dancers and artists to use their body movements to trigger visuals, light and sound. The project will feature a special performance of Ephemera at the Northern Dance studio in the Ouseburn, in Newcastle (dates TBC).

# **Great Exhibition** makes a great impact

It was England's biggest cultural celebration of the summer, involving hundreds of individual events and visited by thousands of people.

Over 80 days, the Great Exhibition of the North celebrated the North of England's pioneering spirit and the impact of our inventors, artists and designers on the world, with Northumbria University right at the heart of the action. Over the course of the three months of the exhibition, Northumbria hosted and took part in a wide variety of exhibits and performances. With the University campus a central part of the Great Exhibition's Design Trail, it was an opportunity to welcome people from all over country to the University and showcase the work of Northumbria's students, colleagues, volunteers and partners.

Here's a look back at some of Northumbria's Great Exhibition highlights.





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### **REVEAL 2018**

Northumbria's Great Exhibition of the North events kicked off with the University's annual REVEAL exhibition, showcasing the creative talents of final year Art, Design and Architecture



### **VOLUNTEERS IN CONFLICTS AND EMERGENCIES**

This interactive, walk-through exhibit explored the lives of volunteers working in some of the world's most dangerous warzones. The information included in the exhibition was based on the work of academic staff from Northumbria's Centre for International Development, as well as international partners such as the Swedish Red Cross.



#### **1UPNORTH**

Taking place in Northumbria's new Computer and Information Sciences building, this two week event showcased the very best of gaming from across the North, featuring multiplayer games, competitions, workshops, hackathons and advice about careers



### **FULL OF BEANS**

As part of a two-day event teaching the public about healthy eating, former Sandhurst chef Rob Kennedy ioined Northumbria staff to cook and serve free meals on campus. The event tied into Northumbria's Healthy Living lab – a research group that informs and advises the public and professionals on public health interventions. This includes school and community breakfast clubs; holiday hunger, nutrition within schools; and the associations between nutrition, cognition and physical activity.



#### TOOLS FOR EVERYDAY LIFE

One-off pieces of contemporary design, including glass lamps and handcrafted chairs, were on display as part of this event, which took place at Sport Central. Showcasing Northumbria students' design work, the exhibition offered visitors an insight into the skills, processes and materials that go into the creation of these unique products.



Dr Alan Richardson, Associate Professor of Civil Engineering at Northumbria, was invited to contribute to this exhibition at the BALTIC Centre for Contemporary Art. He is well-known in the world of engineering for his research into creating a 'selfhealing' concrete, in which natural bacteria is used to seal cracks, preventing so-called 'concrete cancer'. A sample of his concrete was used within a dome, made up of materials representing the North, which visitors

could walk inside. More than 122,000 people visited this

exhibition at BALTIC over the summer.

northumbria.ac.uk/getnorth

# THE CONVERSATION

The Conversation is a collaboration between news editors and academics to provide informed news analysis and commentary that's free to read and republish.

At Northumbria, our academics have been working with The Conversation to produce independent, quality current affairs journalism on some of the latest topics to hit the news.

### HERE ARE SOME OF OUR TOP PICKS



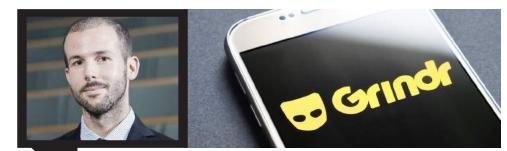
Al could help drones fly like birds





Addressing stoicism in the world of elite sport

Following the sudden and tragic death of 18-year-old Team GB snowboarder Ellie Souter, PhD researcher **Isobelle Kennedy** and Senior Lecturer in the Sociology of Sport, Andrea Scott Bell, argue that more needs to be done to address the culture of stoicism that exists in elite sport.



Should Grindr users worry about what China will do with their data?



Guido Noto La Diega, Senior Lecturer in Cyber Law and Intellectual Property, looks at the acquisition of Grindr by Chinese corporate group Beijing Kunlun Tech, and asks whether the Chinese government would be able to access the data of the app's 27 million users. And if so, whether users should be



#### Academic offers top tips to help students manage stress

Michael Smith, Associate Professor of Psychology offers students some simple stress reduction techniques to counteract the pressures of university life. His recommendations include talking through any issues, getting organised and taking time for self-care, including eating and sleeping well.

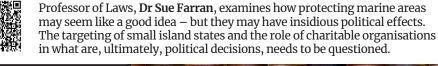


What will it mean to have ten times more satellites in orbit? Christopher Newman, Professor of Space Law and Policy, examines the implications of an increasingly congested orbit as more and more satellites are launched into space, raising concerns about the environmental impact and

suggesting that now is the time to consider a more sustainable approach



Protecting marine areas seem a good idea - but they may have insidious political effects





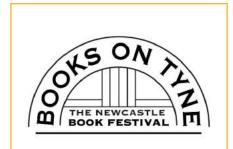
#### Writing obscenity: from Lady Chatterley to the Earl of Rochester

Obscenity might not make for comfortable reading, but that's often its point. The purpose of literature is to make us feel, and to give us new ways of experiencing and thinking about the world around us. Ahead of the auctioning of the copy of Lady Chatterley's Lover used by the judge in the landmark 1960 obscenity trial of DH Lawrence's famous novel, Senior Lecturer in 18th Century English Literature, Claudine Van Hensbergen, examines the use of obscenity in literature.

# The History Boys

Northumbria's History academics have a busy couple of months ahead, from a US book launch at the Taylor Swift Education Center, to re-establishing a new branch of the Historical Association on Tyneside. They'll also be welcoming celebrity speakers from BBC television and the world of pop music to Newcastle for special events.

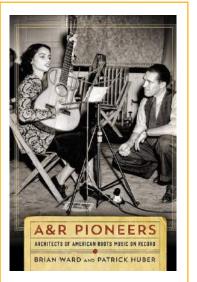
Northumbria University News speaks to them to find out more...



### **WORDS & MUSIC**

Brian Ward, Professor in American Studies at Northumbria, will be joined by Bob Stanley, founder-member of the band Saint Etienne and author of Yeah, Yeah, Yeah: The Story of Modern Pop, at this year's Books on Tyne – the Newcastle Book Festival.

Their talk will focus on the perils and possibilities of writing about modern popular music



and marks the official UK launch of Brian's tenth book, A&R Pioneers: Architects of American Roots Music on Record, written in collaboration with US roots music scholar Patrick Huber. Ahead of Books on Tyne, Brian will fly to Nashville, Tennessee, for the US launch of his book at the Country Music Hall of Fame.

"It's slightly surreal to be launching A&R Pioneers in the US with an event at the Taylor Swift Education Center in the Country Music Hall of Fame and then, just a few weeks later, to do the same in the UK in the company of Bob Stanley, a man whose music and writings I admire so much," he said.

When asked to sum up his new book, Brian added: "A&R Pioneers tells the story of the Artists and Repertoire men – and a handful of extraordinary women – who pretty much invented the roots music US recording industry between the two World Wars. These people decisively shaped the musical styles that become known as jazz, blues, country, gospel and, eventually, rhythm and blues and rock and roll.'

As home to one of the biggest and best American Studies programmes in the UK. Northumbria University is delighted to partner with the British Library's Eccles Centre for American Studies and the Books on Tyne Festival to co-host this very special public event.

Words & Music: Bob Stanley and Brian Ward in Conversation, 7pm, November 30, 2018, City



DISCOVER MORE



#### TV HISTORIAN COMES HOME

historian, filmmaker and activist, David Olusoga, will join academics from Northumbria's History department next month for a special public event to help reestablish a Tyneside branch of the Historical Association. The initiative is being led by Dr Connal Parr, lecturer in Irish History, Brian Ward, Professor in American Studies and Professor Tony Badger, an American Historian who currently serves as national President of the Historical Association.

Celebrated author, presenter,

Thanks to books such as Black and British: A Forgotten Story and extensive appearances on television, David Olusoga is one of the most famous and important historians working in Britain

Brian says: "David Olusoga a self-declared 'Geordie-Nigerian' – is a perfect figure to usher in a new era in the life of the Historical Association

on Tyneside." Connal, who is the main contact for the new Tyneside branch of the Historical Association, added: "It's terrific that the historians at Northumbria are playing a leading role in bringing the association back to the region. As we build up membership, we want to run events and put on activities that capture the imagination of a wide range of history-loving Tynesiders. Just as important, we want to encourage people to get involved with their local historical association and help to shape its programs." Anyone interested in joining the Tyneside Historical Association or learning more about its activities should contact Connal Parr at: ad.northumbria.ha@ northumbria.ac.uk

David Olusoga 7pm, December 1, 2018, City



# Being Human is back

Being Human, a national festival celebrating the Humanities, will return to Northumbria for a fifth year in November.

The University's staff and students have responded to this year's festival theme of 'Origins and Endings' with a series of events across Newcastle exploring 'Life Stories' - tales of new beginnings, origins of art and literature, death and afterlives, and the end of the

Dr Laura O'Brien has helped organise Northumbria's contribution to the festival.

"Northumbria has had a longstanding involvement in the Being Human Festival, and we're really looking forward to our special series of events in 2018: Life Stories," she said.

"There's so much rich and exciting research happening in Humanities at Northumbria and Being Human is the perfect opportunity to showcase this. This year, among other events, people can 'end a life' in a special crime writing workshop, share stories and memories of loss and remembering over tea and cake at the Historical Death Café, and learn what the River Tyne can tell us about the end of the world. in a special evening at the Great North Museum.

**"OUR HUMANITIES DEPARTMENT BELIEVES PASSIONATELY IN** THE VALUE OF THE **HUMANITIES TO HELP US MAKE SENSE OF OURSELVES AND THE WORLD AROUND US. AND EVENTS LIKE** THE BEING HUMAN **FESTIVAL PROVE THIS** YEAR AFTER YEAR."

DR LAURA O'BRIEN



#### HOW TO END A LIFE: MAKING A KILLING IN CRIME FICTION

This unique workshop will unite a crime fiction author, criminologist, police representative and creative writing professor to explore ways of crafting authentic and innovative 'endings' in crime fiction. The event will be held at the law court in Northumbria University. Working in this specially designed courtroom, participants will gain real-life exposure to a courtroom scenario, develop skills in writing and debating the social responsibility of crime fiction authors.

"Crime fiction is the most popular form of genre fiction for contemporary readers and the reason we read on is to find out

who dun it' - but how do you actually write a crime? We will be joined by experts from a range of professions related to crime, to explore ways of crafting authentic and innovative 'endings' to contemporary tales of crime and deviance.'

Professor Katy Shaw November 16 6:30pm -8:00pm



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#### **CONSTRUCTING REMEMBRANCE**

Following a series of workshops, the Longbenton RAF Cadets will share their ideas about memorialisation and the memorials they have created. Join us for the opening of their exhibition. Come and discuss the varied forms memorialisation can take and the challenges

involved in creating a war memorial. 20 November 7:30pm - 9:00pm



#### THE HISTORICAL DEATH CAFÉ

Building on the popularity of death cafés, where people can reflect on death and loss in a friendly setting, this event encourages you to think about your family history in a new way. You're welcome to bring mementos, or old

17 November 2:00pm - 5:00pm

photographs to share.





#### **DEAD FAMOUS: TALES OF CELEBRITY 'UNDEAD**

Do celebrities ever really die? Some famous figures are believed to live, on not just in terms of their cultural legacy, but also in a more literal sense. Join us for an evening of talks, screenings, and music to share some of these strange stories, from post-mortem sightings to resurrections in re-enactment.

23 November 7:00pm - 9:00pm



### THE END OF NATURE: A NIGHT AT THE GREAT NORTH MUSEUM

Explore the idea of the Anthropocene and environmental change during a night at the Great North Museum, through case studies from the River Tyne to central America, the slave trade in the Caribbean and alligators in

Florida. This interactive event provides a new way of thinking about the relationship between human history and the natural environment, and the deep historical causes of climate change.

24 November 6:00pm - 8:00pm



# He's electric

A forward-thinking Northumbria student has been named runner-up in an international competition thanks to his innovative design for a new electrical plug.

The James Dyson Award is an international competition, which is held in 27 countries and aims to discover the next generation of designers and engineers. Northumbria Design for Industry student Will de Brett was named national runner up for his project - Mi Plug - a redesign of the classic 3-pin plug to better match the power and convenience needs of 21st century homes. The plugs are stackable, waterproof and safe for children, thanks to their full plastic construction.

Will had the idea for the redesign after realising that the UK's classic 3-pin plug had remained unchanged for nearly 70 years and was originally designed for large, power hungry appliances and devices such as vacuum cleaners and electric bar fires. He set out to re-imagine what the plug might look like if it was designed today with modern, low-powered devices in mind.

The plug sockets feature lights



to show how much power they are drawing and have a set upper limit to conserve energy usage. The plugs also feature soft silicone cable protectors to protect them from damage and rounded edges so that they are easier to remove, which could be especially useful for the elderly and people with disabilities. Reflecting on being named

national runner-up in the awards, Will said he had Northumbria to thank: "To me, Northumbria is unique, not only because of the great relationships that the tutors have with students, but because Design for Industry is a course that helps you to find out who you are, where your strengths are and what you want to do.

"It's quite rare to find a course that is confident enough to not only allow students to freely pursue and support their own interests, but to also showcase every student at the end of year design show. Design as a subject has moved on from just designing products, and I feel that Northumbria gives us a broad education to support the changing subject.

"Northumbria also allowed me to develop my prototyping, filmmaking and electronics & engineering skills to compliment my design work, providing the facilities and expertise when necessary for me to achieve my

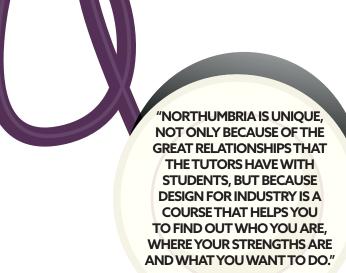
Will's tutor Simon Scott-Harden explained how the Will's design for a new



University seeks to equip all of its design students with the skills to engage with, and anticipate the future needs of, industry.

"This is an excellent achievement and we're very proud of Will," Simon said. "His innovative design showcases his strengths in problem solving and design realisation and demonstrates the professional, industry-focused thinking and creative ambition we work hard to develop and nurture in all of our Design for Industry students."

Northumbria's flagship Design for Industry degree has produced some of the University's most outstanding and best-known graduates including Sir Jonathan Ive, designer of the Apple iPod, and the company's current Chief Design Officer.



**WILL DE BRETT** 

DISCOVER MORE

northumbria.ac.uk/design



Research by Northumbria on how to overcome the digital divide in rural communities has been showcased in front of an international audience of communication policy makers.

Lecturer Paolo Gerli and Professor Jason Whalley from Northumbria University's Newcastle Business School, were recently in Washington DC in the United States to present their research at the prestigious 46th TPRC research conference on Communication, Information and Internet Policy.

Based on two examples of rural broadband connectivity schemes operating in the North West of England, their research demonstrates how adopting more innovative business models could successfully bring superfast broadband to some of the world's most isolated

Titled 'Fibre to the Countryside: A Comparison of Public and Community Initiatives in the UK', the study explores how community-led and public initiatives can successfully contribute to promoting the diffusion of superfast broadband by analysing two projects delivering fibre networks in

One is a cooperative fibre-tothe-home (FTTH) network, financed and built by local residents. Each community

has to understand demand and collect enough funding to cover what is needed. The fibre is then laid by volunteers and landowners are required to consent to free wayleaves.

The second is a public-private partnership between British Telecom and Cumbria County Council, which is one of several projects funded by Broadband Delivery UK (BDÚK) to install fibre broadband in areas excluded from commercial deployments.

Paolo Gerli explains: "Our research studied both approaches and demonstrates how the pioneering business models used in Cumbria can contribute to bringing superfast broadband to very remote communities which have been struggling with poor connectivity for two decades.

"While the rural digital divide remains an unsolved issue across developed and developing countries, by analysing the interplay between community-led initiatives and public-private partnerships, this research provides useful recommendations for policymakers and practitioners committed to providing everyone

PAOLO GERLI, NORTHUMBRIA'S NEWCASTLE BUSINESS SCHOOL with fast connectivity and dealing with the roll-out of rural broadband. The TPRC Research Conference on Communications. Information and Internet Policy

together a diverse range of

PROBLEM."

"THE CONFERENCE PROVIDED

A GLOBAL PLATFORM TO

**SHOWCASE INNOVATIVE** 

RURAL BROADBAND

BEEN DEVELOPED IN THE

**NORTH OF ENGLAND TO** 

**ADDRESS A WORLD-WIDE** 

**INITIATIVES, WHICH HAVE** 

Paolo adds: "Presenting at the conference was a fantastic opportunity for us to discuss our research with academics and practitioners from all over the is an annual event which brings world. It also provided a global platform to showcase innovative international researchers from rural broadband initiatives, which have been developed in academia, industry, government,

the North of England to address what is, in fact, a world-wide

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and non-profit organisations. **DISCOVER MORE** 

### Graduate surveyors demonstrate 'high standards and integrity'



Northumbria's graduate surveyors are working to the highest standards of excellence and integrity, according to new figures from the Royal Institution of Chartered Surveyors.

Between January and June of this year, one in every 14 surveyors in the UK to be awarded the prestigious status of Member of the Royal Institution of Chartered Surveyors (MRICS), studied at Northumbria. This confirms the University is a significant provider of high-quality graduate

To become a Chartered Surveyor and achieve MRICS status, graduates must prove their experience and competency to pass an Assessment of Professional Competence (APC). All of Northumbria's surveying programmes are RICS accredited

meaning students can enrol on the APC to become a Member of RICS as soon as they graduate. Dr Paul Greenhalgh, Head of

Built Environment and Associate Professor of Real Estate, said: "The fact that our surveying degrees are already RICS accredited makes them excellent preparation for MRICS status Our students tell us that the accreditation attracts them to study at Northumbria in the first

"It's fantastic that so many of our graduates go on to achieve MRICS status so shortly after graduation.

This means that we are a significant national provider of graduate surveyors into the profession."

Northumbria offers a range of courses across building and quantity surveying, real estate, construction and project management, and is one of the few UK universities to offer a new Quantity Surveying Degree Apprenticeship.

DISCOVER MORE



### What next for city centres?

Will city centre shops struggle as the popularity of online retailers continues to rise? Could a growing 'working from home' culture see a dip in demand for city centre office space?

These are just some of the questions being asked by academics from Northumbria University, as part of an international project exploring how our cities could look in the

During September, the University hosted a global conference to debate the issue, attracting delegates from around the world including Australia, South Africa and Brazil. Representatives from UK businesses, charities and local government also took part. Professor Bob Giddings, Chair of Architecture and Urban Design at Northumbria University, is leading the international project.

"The rise of electronic systems is changing the

demand for retail and commercial property in the city centre," he said. "As a result, we are seeing more and more empty space in city centres, and we need to look at how we can put that space to the best use.'

The Future of the City Centre project is funded by the Arts and Humanities Research Council and run in partnership with the University of Strathclyde; the University of Newcastle, Australia; the University of Paraiba, Brazil and the University of South

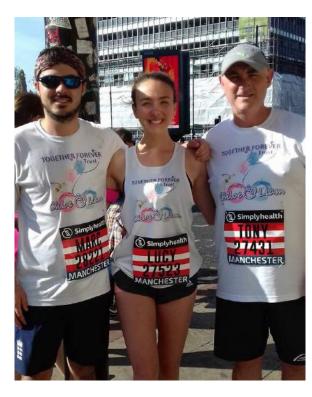


northumbria.ac.uk/architecture





Marc and friends fundraising for good causes



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"I CANNOT ENCOURAGE YOU ENOUGH TO GET INVOLVED, SPORT IS A FANTASTIC **OPPORTUNITY TO USE AND EXPLORE** SKILLS TO ADD AND AID YOUR DEGREE. THERE REALLY IS SOMETHING FOR **EVERYONE.**"

# Meet Northumbria's new sport president

Northumbria has a new student sport president, Marc Wood. He wanted to tell new students why the University is such a great place for sport, health and wellbeing, not just for elite athletes, but for people of all ages and abilities. Northumbria University News speaks to Marc about his sports journey and plans for the next 12 months.

"Back in 2015, when I arrived at Northumbria university as a nervous fresher, I made sure to throw myself into as many opportunities as possible. I was really eager to make new friends and get the most out of my time at university. One area I knew I wanted to get myself involved with was sport, so I headed along to the annual Sport, Health & Wellbeing Fair to see what was

"On that day I signed up for the cricket team and after a successful trial, I was lucky enough to make the squad. However, little did I know that this was just the start of my Northumbria Sport journey. A year later, after attending the sports fair for a second time, I decided I wanted to try something completely new, so I started boxing, starting with the club participation programme, and eventually graduating to the team. I was able to travel the country representing the University in home shows and at BUCS – a personal highlight of my time at university. "Even if sport isn't something

you have been involved with before arriving at Northumbria, I can guarantee you that there is something for everyone within our diverse and evolving programme. It could be that you get involved with one of our 17 team sports – where you can play to the highest level within university sport, competing in BUCS (British Universities & Colleges Sport). Or you might get involved with one of our clubs – which offer you the chance to enjoy the sports you

love or try something completely new, in a relaxed and friendly environment. Our club sports vary from development netball, to intermural football leagues, equestrian and all the way to Quidditch – for any of you Hufflepuffs out there - meaning that no matter what your interests in sport or the standard you play, we have you covered.

"If you can't commit to regular sport, don't worry because this year, we will be launching our new halls sport and pop-up sports programmes, which will be bringing sport to you in the most weird and wonderful ways. Whether that is spending your library breaks playing swing ball or having a Friday night in halls playing in a pool or e-sports tournament, there is always something to get involved in.

"Here at Northumbria Sport we also offer loads of exciting ways to get involved with sport without actually competing. You could spend time as a volunteer or intern, or get involved with our charity, the Northumbria Sport Foundation, by fundraising through the Great North Run, climbing the three peaks or even volunteering in our flagship Zambia project. There are lots of fantastic, student friendly ways to enhance your CV and create lasting memories without ever

having to kick a ball. "Finally, throughout the year we host a variety of spectator events, including the BUCS Super Rugby, and the Northumbria Big Weekender and Legacy Cup. I can assure you as both an athlete competing and spectator watching, that these nights are a

must and something to definitely look out for. They create memories that will last forever.

"I cannot encourage you enough to get involved. Sport is fantastic opportunity to use and explore skills to add and aid your degree completion. You will also no doubt make lifelong friends. Please remember, we have all been there before and staff and returning students are here to listen and help you no matter what. And if you ever see me and have any questions please feel free to stop me for a quick chat. Good luck and enjoy your first year at Northumbria."





Using the current system, the researchers calculated cricketers would have to play a million innings each to get a truly accurate comparison for all players.

Publishing their results in the Journal of the Royal Statistical Society, Dr Peter Philipson from Northumbria University and Professor Richard Boys from Newcastle University, built a statistical model to rank the best test cricket batsmen of all time.

The study revealed significant uncertainty in the current rankings of players. For example, England Captain Joe Root could be ranked anywhere from ninth to 303rd, while New Zealand's star batsman Kane Williamson would feature in the list anywhere between positions four and 343. The one constant for all ranking systems is Australian legend Sir Donald Bradman, recognised as the best batsman of all time and this is again confirmed by the

Studying all players that have ever played test cricket – which totals 2,855 test batsmen from the ten Test nations playing between 1877 and 2017 – researchers found that the ranking of a batsman can easily be too high if, for example, they only played against some of the weaker test sides or only played in home test matches.

A major component of the new model was to account for the many factors that influence performance, such as era, number of innings played, age, home advantage and the opposition team. Even when taking these factors into account, there is considerable variation in the innings-by-innings performance

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northumbriasport.com

make sure that there are opportunities for people that want to just enjoy their sport. "There's more taster

to take up a healthy and active lifestyle. This year saw around 4,000 visitors to the University's Sport Central building, which was more than double the number that attended last

Student Sport volunteer Emma Haley was on hand to Sport, Health and Wellbeing Fair. help students at this year's

The University holds a Sport,

which includes representatives

societies – every year, with the

aim of getting more students

Health and Wellbeing Fair –

from sports teams and

"Here at the fair, we're trying to get as many people as possible signed up for a wide variety of sports," she said. "Obviously, there are people

who want to play sport at a

more serious level, but it's really important that we

sessions for a wide variety of sports now too, which means that people don't necessarily have to commit if they don't want to – you just take it at your own pace. So, this vear we're really focussing on getting people more involved and interested in participating."

Emma was also keen to highlight the other areas of Northumbria Sport that students can get involved with, even without playing.

"A few months ago, I tore my anterior cruciate ligament and have had a terrible last few years with injuries, but the great thing about Northumbria Sport is that I'm still able to participate and remain involved. Last year I did an internship whereas this year, I'm doing a volunteering placement and taking a more hands-on role.

NORTHUMBRIA UNIVERSIT

"There's loads of ways to get involved with sport here at Northumbria, even without playing it. If you're thinking about getting involved in the programme, I would definitely recommend it. It's not only just great for making friends, but it also gives you experience in volunteering and enhances your own professional development.



northumbriasport.com





Autumn 2018 • Northumbria.ac.uk Issue 17 **NEW SPORTS** 

Northumbria has a new sports president, Marc Wood. Page 42





# Sports stars in China partnership

A Northumbria rugby team helped seal an exciting new sporting partnership by travelling 6,000 miles for a week of friendly competition.

The University's Women's Rugby 1st team spent 10 days in China and Hong Kong, competing in the fourth annual 2018 China-UK Universities Sport Week. They completing their trip with a training camp over two days with the Hong Kong National Women's team.

The Sport Week, organised by the Federation of University Sports of China (FUSC), took place at Northwestern Polytechnic University in Xi'an, China, and was aimed at promoting global sporting links.

Professor Jon Reast, Pro Vice-Chancellor (International) at Northumbria University, said: "This project is a great opportunity to promote

Northumbria's international profile through sport, expanding collaborations and exchanges with partners in Hong Kong and China. Our students have thoroughly enjoyed taking part in this tournament as well as training with the Hong Kong national women's team, discussing vital student exchange opportunities through

Northumbria was selected to take part in the Sport Week due to its strength in rugby union, specifically for the University's reputation in supporting women's sport. As well as training alongside the Chinese players, the students also got to enjoy their trip off the pitch

with guided tours and cultural activities around the region.

Skye Jackson, Northumbria Women's Rugby 1st team Captain, said: "As far as trips go, it couldn't have been more beneficial to the team; bonding between the new and old players, playing in extreme weather conditions and being coached at an international level. The girls are still overwhelmed from this once in a lifetime opportunity and can't thank Northumbria University enough for making the trip possible.

Northumbria Women's Rugby 1st team Coach, Jack Lambert, added: "Players worked extremely hard on the pitch and got to explore a very different

culture, with some fantastic trips and experiences in both China and Hong Kong. The highlight of the trip was experiencing an international training camp in Hong Kong which pushed players physically and mentally but also gave them a taste of international rugby and how to perform at the highest level."



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