

# BA2

THE MAGAZINE FOR ALUMNI AND FRIENDS OF THE UNIVERSITY OF BATH  
ISSUE 25

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## 2020 VISION

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DISCOVERING A NEW SPECIES AND THE QUEST TO UNDERSTAND LIFE AFTER EXTINCTION.

# LAST DAYS OF THE DINOSAURS

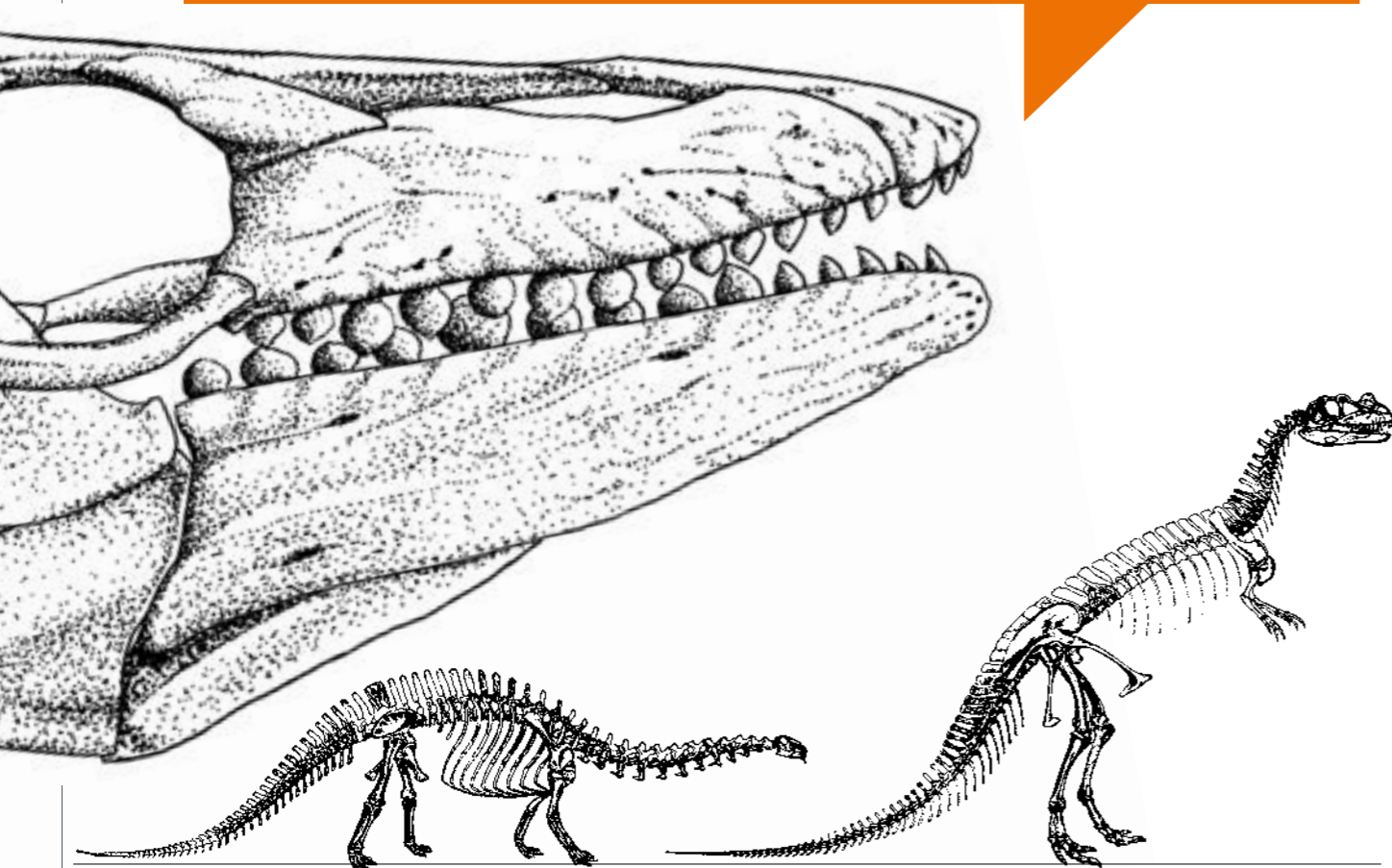


UNIVERSITY OF  
**BATH**

We're travelling through time in this BA2. Back 66 million years to the asteroid strike that wiped out the dinosaurs and forward to 2020 to glimpse what our new home – with space to create the next generation of clean and efficient vehicles – might look like. And there are plenty of highlights from the here and now to get your teeth into as well.

We hope you enjoy it.

Let us know by emailing [alumni@bath.ac.uk](mailto:alumni@bath.ac.uk) – start your message with 'BA2'.



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## Birthday BA2

"I was at Bath University for four wonderful years and I greatly enjoy following the progress of the University and new students through your issues of BA2."

**Carol Anderson (née Huggins)**  
(BSc Applied Biochemistry 1970)

Coincidentally, Carol is also in the RAG busking photo, fifth from the left.

"My husband Dr Patrick Squire worked at the University for 35 years – from its foundations. Reading your magazine brings back many happy memories and also excitement at the thought of its future advances."

**Daphne Squire**

Thank you for all your comments about our special issue of BA2 to celebrate our 50th birthday.



## Remembering RAG

In our last issue we ran a feature about Bath RAG's new generation, which prompted a rush of RAG recollections.

Thanks to Reunion attendee **Christine Powis (née Thacker)** who shared her photo of the final year Biochemistry group busking in the Abbey courtyard for RAG in 1969.

Fellow Reunion attendee **Isobel Michael** (BA MLES German & Russian 1991) sent in this photo of the 1987 'Alien RAG' procession. Who was the Bath grad in the Cyberman suit?

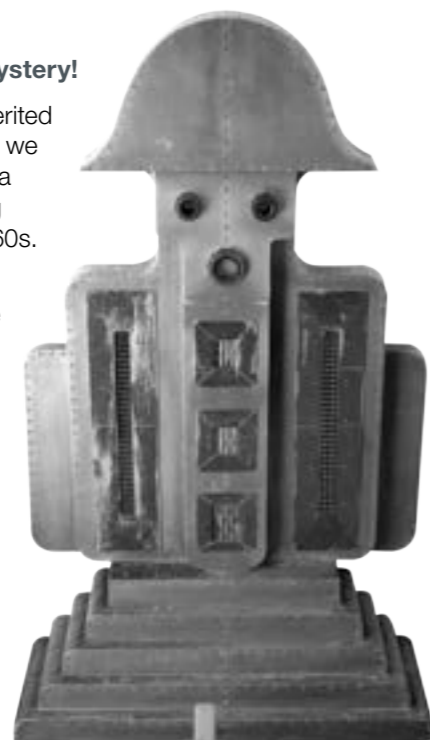


## Mr Robot

Help us solve a mystery!

The Library has inherited this sculpture which we think is the result of a student engineering project from the 1960s.

We'd love to know more, so if you have any information about our new friend, please do get in touch.



## Cheerio Club XL

Back in May we shared the news that Club XL (otherwise known as Caddies) was closing down. Memories came flooding in from alumni on Facebook, including this gem from **Jonathan Archer** (BSc Physics 2012):

*Walk into XL.*

*Think: "This nightclub is huge!"*

*Walk deeper into the dancefloor.*

*Walk into the full-length mirror.*

*Think: "This nightclub is tiny!"*

*Such memories.*

# ON PARADE

Highlights from the University of Bath



Vice-Chancellor

Campus

## View from 4 West



**It was quite the view from 4 West on the night of Saturday 6 May, when a spectacular fireworks display lit up the sky over the lake, cheered on by the biggest gathering of alumni that we had ever welcomed to campus.**

Of course, it wasn't the first time that day that all eyes were turned to the skies. At midday we had watched the Red Devils, the Parachute Regiment's freefall team, land on the running track bearing a giant flag commemorating our 50th anniversary. It was an awe-inspiring sight, and undoubtedly one of the highlights of our first ever University of Bath Festival. In all, we welcomed over 10,000 visitors that day, and it was wonderful to see our campus community make so many people so welcome. You can sample some of the best bits from the Festival and reunion on page 36.

As our golden year ends, I hope it will live long in the memory of everyone who has celebrated with us, and leave a lasting legacy as well. This year we have received the Gold Award in the Teaching Excellence Framework, been awarded nearly £39 million to develop our new Institute for Advanced Automotive Propulsion Systems on the Bristol & Bath Science Park and launched a new Gold Scholarships programme that will enable more talented people, whatever their background, to enjoy everything that a University of Bath education can offer.

Thank you all for the part you have played in our University. Here's to the next 50 years and beyond. Please do continue to play a part in our future.

**Professor Dame Glynis Breakwell DBE DL FAcSS**  
President and Vice-Chancellor

## Top marks for Bath



**It's official: we're the best in the South West. Bath has been ranked fifth in the UK by the Guardian University Guide 2018, climbing five places from last year.**

The quality of our individual courses was also recognised, with 13 subjects in the top ten, including a number one ranking for Psychology.

And that's not the only league table that Bath scored highly in, as we were ranked 11th out of 129 UK institutions by the Complete University Guide 2018, holding our position for a third consecutive year.

We're also one of only two UK universities to feature in the *Times Higher Education* list of 55 Tech Challenger Universities, which recognises innovative and pioneering approaches to research collaboration and funding.

Alumni

Date for your diary

Discovery Series



**Where do black holes come from? What can the extinction of the dinosaurs tell us about evolution? How can we prevent young rugby players getting injured?**

We know you enjoy hearing about our research, so we're giving you the chance to learn something new face to face. Please join our researchers at the Royal Society in London for drinks, canapés and a feast of discoveries.

Buy your tickets at  
[www.bath.ac.uk/alumni](http://www.bath.ac.uk/alumni)

Fancy a drink?



Research

## Buzzwords

What our researchers are talking about.

### Promiscuity

A Bath-led team has found that promiscuous birds slow down the evolution of new species. Most polygamous birds even have a certain 'type'!

### Limbering up

Our experts have designed new balance, strength and movement exercises for young rugby players that can reduce injuries by over 70 per cent.

### Facewash

Our scientists and engineers have developed biodegradable microbeads from cellulose. These could replace harmful ocean-polluting plastic ones found in cosmetics.

### Bad vibrations

The impact of wobbly bridges and skyscrapers on human health is to be tested by teams from Bath and Exeter.

### Biased bots

Machines can adopt human prejudices, according to our research. This ranges from liking flowers over insects, to offensive views on race and gender.

### Work ethic

New research proves that migrant workers have a stronger 'work ethic' than UK-born workers, but only in the short term.

Find out more about our research at [www.bath.ac.uk/research](http://www.bath.ac.uk/research)

Sorry, you're not my type!



87

The number of PhD scholarship opportunities created by alumni and friends since our Look Further campaign began.



Alumni



## Olympians honoured

Some of Britain's leading sports stars have trained and studied at Bath, and this year we welcomed two of them into our illustrious community of honorary graduates.

In the 2010 Olympic Winter Games, former student Amy Williams MBE became Britain's first skeleton gold medallist and has remained an excellent ambassador for the University since she retired in 2012.

Amy said: "The University, and especially its outstanding sports facilities, has been a very important part of my life for many years, ever since my school days here in Bath. I couldn't have achieved what I did without the opportunities provided by the University."

Sprinter Jason Gardener MBE also received our greatest honour. Jason, nicknamed the 'Bath Bullet', spent thousands of hours training at the University, going on to win World, Commonwealth and European titles.

The ceremony rounded off our golden anniversary year, which not only recognised the incredible contributions made by some of our top athletes and coaches, but also outstanding individuals from all walks of life who have excelled in their fields. For the full list, turn to page 34.



Teaching

## We are gold!

It's not just our anniversary that's golden. Bath has been awarded Gold in the Teaching Excellence Framework (TEF), making the University among the best in the UK.

The Government introduced the TEF to encourage top-quality teaching and to help prospective students make better-informed choices.

Results are based on factors such as learning environment, student satisfaction and graduate employment, and the panel praised Bath for ensuring students develop the knowledge and skills most highly valued by employers. They also singled out the support that alumni give to current students and graduates via Bath Connection – our online networking platform.

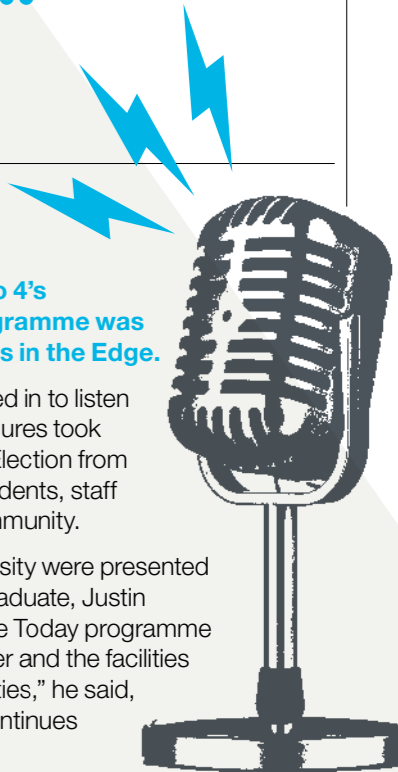
Media

## Talking politics

Earlier this year, BBC Radio 4's agenda-setting Today programme was broadcast live from campus in the Edge.

Over seven million people tuned in to listen as a panel of senior political figures took questions about the General Election from a live audience of over 100 students, staff and members of the local community.

The segments from the University were presented by Bathonian and honorary graduate, Justin Webb. "It's a real delight for the Today programme to be borrowing the brainpower and the facilities of one of the UK's top universities," he said, "and I hope the association continues into the future."



Research

## In a nutshell

Who's this handsome fellow? Is he the Alumni Office dog?

I wish. This is Higby. He's helping Caroline Hickman in our Department of Social & Policy Sciences with her research.

Dogs do research?

This one does. Higby and his co-researchers, Dave and Murphy, are testing the biophilia hypothesis.

What's the biophilia hypothesis?

It suggests that humans possess an innate tendency to seek connections with other forms of life. It has been tested in places where people receive social care.

Dave, Higby and Murphy work in local day care centres for people with Alzheimer's. Research suggests that being in the company of the dogs can help a person with Alzheimer's peel back the layers of confusion and let their underlying personality return.

So what do Dave, Higby and Murphy do all day?

What most dogs like to do. They greet people enthusiastically in the morning, which makes members feel more at ease. The dogs move around the centre freely, just as they would in their own home. They even have their own sofas where members sit with them or brush their coats.

As well as the positive tactile experience of stroking, the dogs spark memories and conversations. And they steal a biscuit when an opportunity presents itself.

What are the dogs helping Caroline find out?

Caroline is exploring how being around Dave, Higby and Murphy helps people with Alzheimer's become 'free of illness' for a moment, as they connect with a loving relationship with the dogs, which in turn helps their relationships with family and friends.

And is she seeing an effect?

Absolutely. While sometimes people can struggle to remember the names of family members, staff or even themselves, Caroline says they often remember the names of the dogs.

Great to see research having such a paws-itive impact.

You couldn't resist, could you?

Woof!





Campus

## Grand designs

Diggers and cranes have been a fixture on campus this year, as we continue to expand and improve our facilities for learning and teaching.

Finishing touches are being made to Polden Corner, our purpose-built postgraduate residences for 300 students. And down by the lake next to 4 South, work is continuing on our Milner Centre for Evolution, which will open in Summer 2018.

Plans have also been unveiled for a brand new School of Management facility at the eastern end of campus, across the road from the Sports Training Village.

Designed by Hopkins architects, who have previously worked with Harvard, Yale and Imperial College London, the new building will house all our management and entrepreneurship activities from 2020.

Students



## Golden opportunities

We're proud of our reputation for supporting scholars and, thanks to your help so far, we've helped nearly 1,500 of our brightest students most in need to fulfil their potential.

This year we welcome our first Gold Scholars, supported by the University and our alumni and friends. As well as the security of a £5,000 annual bursary to help with

living costs while they study, our Gold Scholars will also get tailored support to gain the skills and make the connections they'll need to succeed beyond their degree.

We'll be keeping you up to date with their progress in the coming months and years. You can find out more about our Gold Scholarships programme at [lookfurther.bath.ac.uk](http://lookfurther.bath.ac.uk)



Campus

# £67m

What our new Institute for Advanced Automotive Propulsion Systems will stimulate in research and development between 2020 and 2025.

## Turner Prize-winners Assemble on campus

The biggest arts story of the last two years is coming to campus this autumn.

Assemble, the architecture and design collective, won the coveted Turner Prize in 2015 for their social housing refurb in Liverpool's Toxteth community. Now Edge Arts at the University has commissioned new works by Assemble for their exhibition, *Parallel (of life and) Architecture*.

The exhibition reflects on the enduring legacy of Alison and Peter Smithson – the leading brutalist architects of the mid-20th century – and will feature three installations from Assemble & Simon Terrill, The Decorators and Sophie Warren & Jonathan Mosley, all inspired by the Smithsons.

The Smithsons designed a series of buildings at the University between 1978 and 1990, including the brutally charming 1 West North, and 6 East, which has long been the home of our Department of Architecture & Civil Engineering.

"From the moment they were designed the Smithsons' buildings at the University have been influencing architects and designers across Europe," says alumna Dr Amy Frost, Architectural Curator of the Bath Preservation Trust. "In buildings such as 1 West North they explored how to maximise natural light and harness solar warmth, and in doing so played a vital role in the evolution of sustainable architecture that guides so much work today."

The exhibition on campus is presented as a companion to the Museum of Bath Architecture's archival exhibition *Past, Present, Future: Bath and the Smithsons*, which explores Alison and Peter's time working on campus and visiting the city.

"They are well known as leading post-war architects," adds Amy, "but they understood that there were important lessons to be learnt from what the architects and builders of Georgian Bath created."

You can enjoy *Parallel (of life and) Architecture* at the Edge for free, between 22 September and 4 November. Meanwhile, *Past, Present, Future: Bath and the Smithsons* can be seen at the Museum of Bath Architecture until 26 November.

### Get involved

Were you taught by Peter Smithson, or did you spend time in their buildings at the University? We're collecting memories and photos about what people may have learned from the Smithsons as part of the *Past, Present, Future* exhibition. Please contact Dr Amy Frost on **01225 333895** or email [beckford@bptrust.org.uk](mailto:beckford@bptrust.org.uk).

Recap

## Sum total

Our fabulous 50th anniversary year began on 20 June 2016 and it truly was a team effort, involving almost every University department. High five-ohs all round!

In our golden anniversary year:

# 2,500



rubber ducks were given loving new homes

# 10,500



visitors enjoyed hundreds of activities at our University of Bath Festival

# 150



Gold Scholarship opportunities have been created



52 honorary graduates were welcomed into our alumni community

# 30 COUNTRIES

were represented at our anniversary conference series



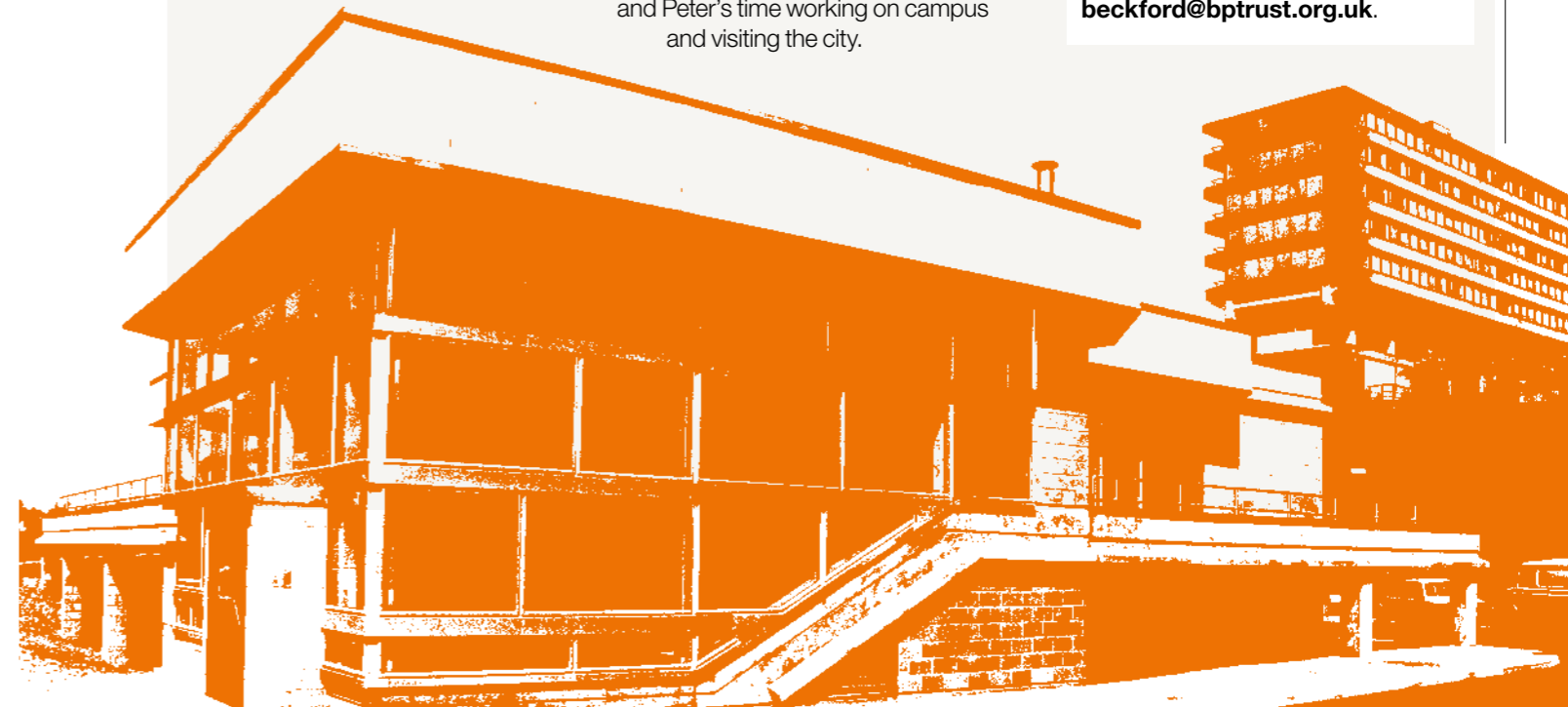
# 5,500

people (our biggest-ever rugby crowd) watched our First XV play at the Rec on our birthday



# 100

staff and students ran the Bath Half Marathon, raising thousands for charity



# LAST DAYS OF THE DINOSAURS

DR NICK LONGRICH ON DISCOVERING  
A NEW SPECIES AND HIS QUEST TO  
EXPLAIN LIFE AFTER EXTINCTION.

Words Jodie Tyley



ixty-six million years ago, an asteroid crashed into Earth and changed the course of the planet's history. To the hapless creatures who witnessed the event, the colossal space

rock appeared as a mere speck in the sky, before slamming into Mexico's Gulf Coast seconds later. The explosion – equivalent to 10 billion Hiroshima A-bombs – triggered an apocalyptic chain of events that would wipe out 93 per cent of mammals. The age of the dinosaurs was over, but traces of these creatures remain in the fossils that have fascinated us for centuries – fossils like the ones occupying a certain unassuming shed on the University campus...

"Here's what we're hunting," says Dr Nick Longrich from our Milner Centre for Evolution and the Department of Biology and Biochemistry, gesturing at the slabs of rock around the room, each one bearing the ancient remnants of supersized skeletons. "These are mosasaurs," he continues, "giant, carnivorous marine lizards with flippers instead of feet. Some species could grow up to 15 metres long (49 feet)." He then reveals an artist's impression so nightmarish, it would make *Jaws* tremble.

With a scrap of sandpaper and a paint brush, Nick scrapes away at a row of sharp teeth that once belonged to a mosasaur. "We're trying to figure out what was living in the oceans when the asteroid hit," he explains. "Some people have tried to argue that the environments were stressed, diversity was low and so the planet was vulnerable to an asteroid impact, but I think that's nonsense. We have close to 20 different mosasaur species in this fauna, and that tells us they were incredibly diverse just before the asteroid hit. The implication is that you can't have lots of apex predators without a productive and stable food chain."

Mosasaurs grew  
up to 15 metres long



These deep-sea behemoths dominated the oceans until the end of the Cretaceous period, which we know from the fact that their remains have been discovered on every continent. However, most of Nick's collection is from Morocco – a rich source since much of Africa was underwater at the time mosasaurs were thriving. Dinosaurs, on the other hand, made up just one per cent of the total fauna in this region, so very little was known about them during this time period – until now.

In early 2017, Nick identified a fossil belonging to one of the last dinosaurs alive in Africa – before the cosmic catastrophe wiped them out. "It's a bit like hunting for fossil whales, and finding a fossil lion," he says. "It's an incredibly rare find – almost like winning the lottery. But the phosphate mines are so rich, it's like buying a million lottery tickets, so we actually have a chance to find rare dinosaurs like this one."

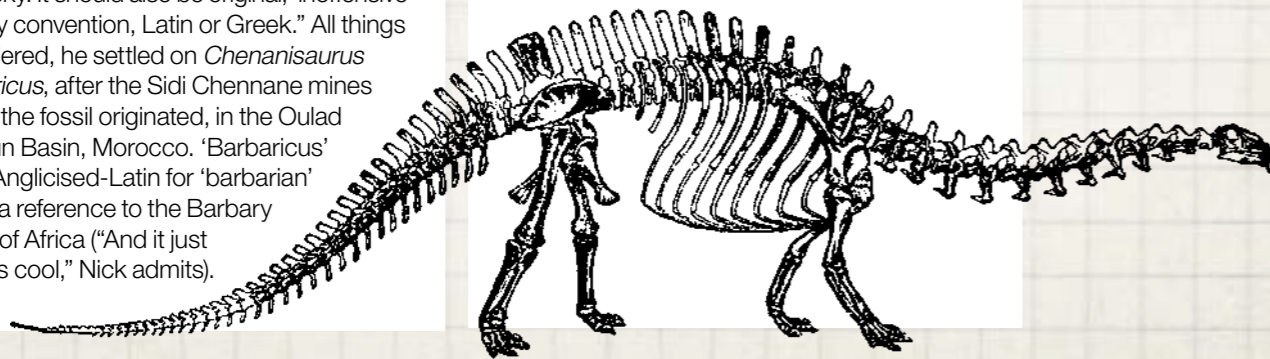
The newly identified dinosaur was an eight-metre-long carnivore that walked on two legs and had tiny arms. This might have fit the description of a *Tyrannosaurus rex*, but Africa – completely cut off from the other continents by oceans for tens of millions of years – played host to an entirely different set of species. So while the tyrannosaurs dominated North America and Asia, their distant cousins, the abelisaurids, were the top predators in Africa, South America, India and Europe. That's how Nick knew this couldn't be a tyrannosaur, and must be a fossil from an animal no one had seen before.

As it was a new species, he had the honour of naming it, but with a distinct lack of books on 'what to call your dino-baby', where do you start? "There are no real rules, only guidelines," Nick explains. "You're not supposed to name it after yourself – that's just tacky. It should also be original, inoffensive and, by convention, Latin or Greek." All things considered, he settled on *Chenanisaurus barbaricus*, after the Sidi Chennane mines where the fossil originated, in the Oulad Abdoun Basin, Morocco. 'Barbaricus' is the Anglicised-Latin for 'barbarian' and is a reference to the Barbary Coast of Africa ("And it just sounds cool," Nick admits).

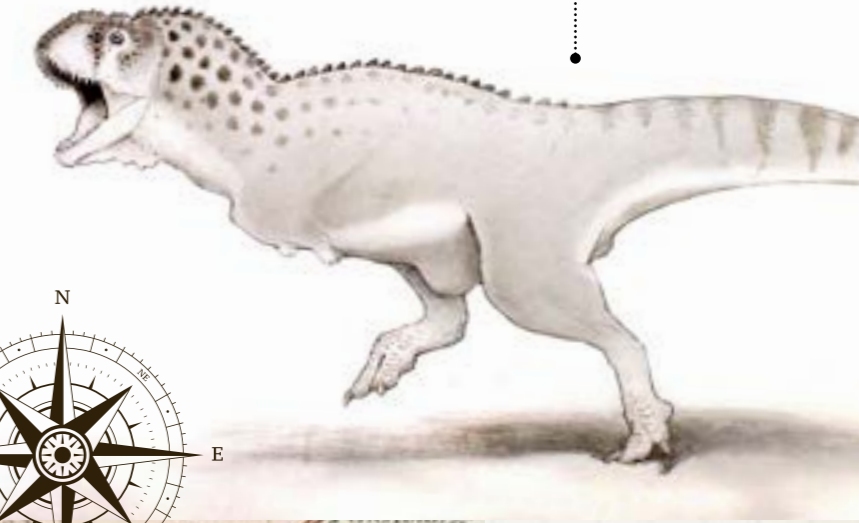
Although this *Chenanisaurus barbaricus* died long before the extinction event – likely drowning in a river before being swept away to sea – the species would have witnessed the blazing fireball that destroyed their world. So what does this discovery mean for our understanding of the mass extinction event? "It tells us there was a distinct fauna, different from the North American fauna, and it was hanging on until the end," says Nick. "It means that 66 million years ago, you would find dinosaurs all over the world, and they were doing well. The implication being that if they had not been wiped out by the asteroid, they would still be here today."

The celestial impact may be set in stone, so to speak, but when the theory was first proposed in 1980 by scientists Luis and Walter Alvarez, people were sceptical. Only in the past 20 years have we gained a real understanding of what happened. It's therefore not surprising, perhaps, that museums house countless unidentified fossils, just waiting for palaeontologists like Nick to delve into their collections.

Nick carries out some dental work on a mosasaur jaw



The new species, *Chenanisaurus barbaricus*, was one of the last dinosaurs on Earth

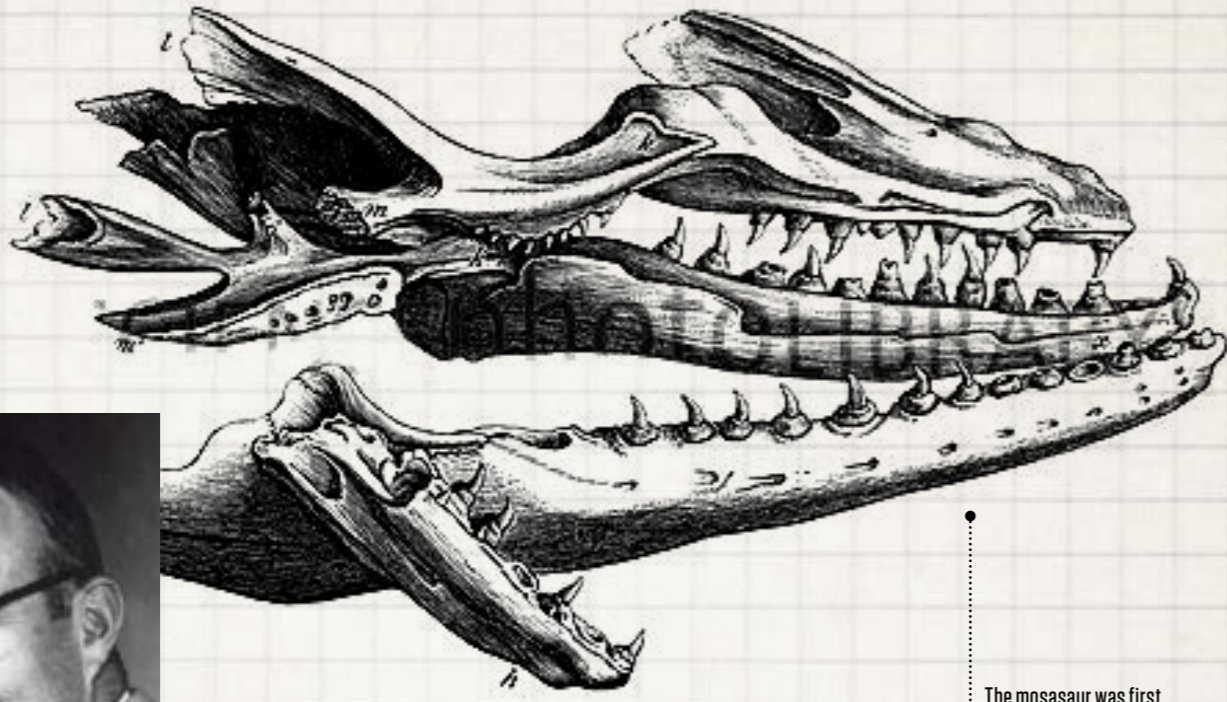


"The discovery is often not digging it up," he says. "Until you actually know what it is, it's just a bone." By his own admission, Nick has spent most of his career pulling open museum drawers. "Most of what I do is building on other people's finds – recognising something that's been overlooked and trying to put it into context. Palaeontology, for me, is like *Raiders Of The Lost Ark*, but it's not like the swashbuckling scenes where he's fighting Nazis and adventuring in the desert. It's like the scene at the end where the Ark of the Covenant is put into storage and I want to go and find that facility and find out what's in there."

**"Palaeontology, for me, is like *Raiders Of The Lost Ark*"**

If you know what to look for, it doesn't take long to realise when you've come across something special – even when it's just a fragment of the former animal. In the case of the *Chenanisaurus barbaricus*, it was only part of the jaw. "The teeth of mosasaurs and dinosaurs are very different," says Nick, "so within ten minutes, I knew what we had. It was an exciting find. For me, even part of a new species is much more interesting than a complete skeleton of a known species like *T rex*. I live to find that one more discovery, that one more fossil which changes everything."

Physicist Luis Alvarez (pictured) and his son Walter found evidence of the dinosaur-killing asteroid in 1980



"I live to find that one fossil which changes everything"

The mosasaur was first discovered c. 1770

However, there isn't a breakthrough big enough that would make Nick retire from palaeontology. While studying at university, he wrote a paper about the physicist and Nobel Prize winner Luis Alvarez. Here was someone who had enjoyed an amazing scientific career by any stretch of the imagination and yet he was 69 when he made one of his greatest discoveries – the theory that explained the extinction of the dinosaurs. "He wanted to carry on doing cool science long after he could have retired and that really spoke to me," Nick recalls. "In some ways, being a palaeontologist is like being a student forever because you're always learning something new. As you fill in the gaps, you have to find new problems to solve."

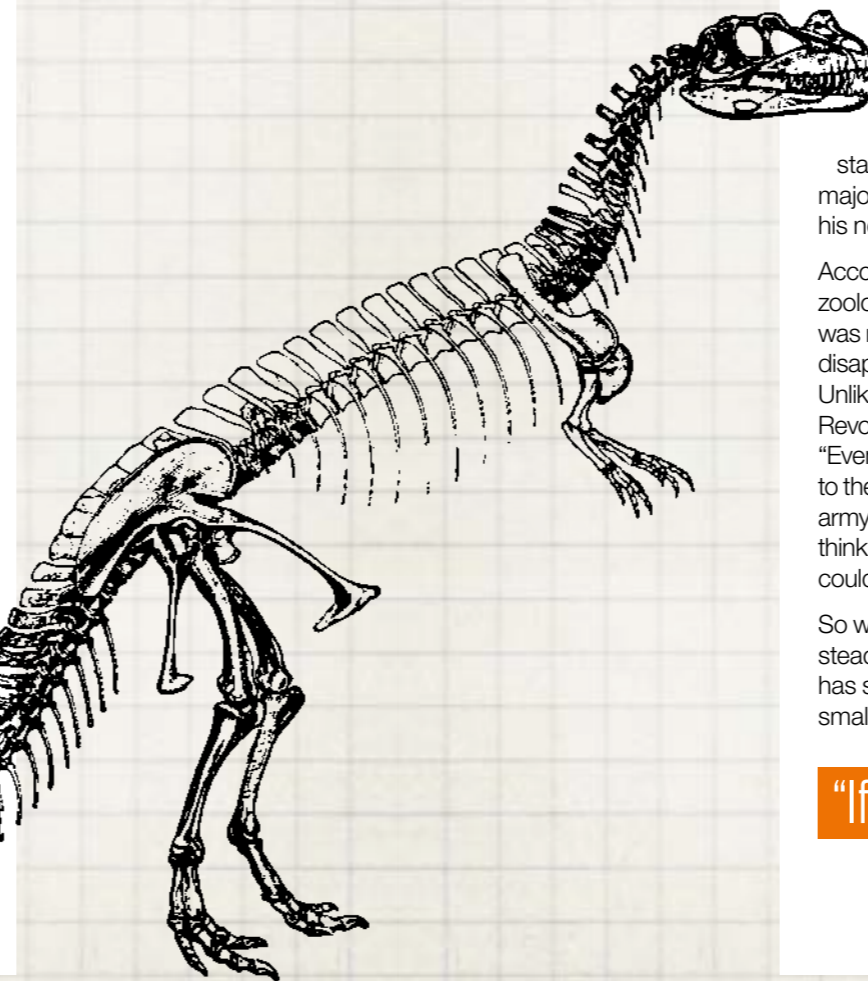
Part of what draws Nick to this particular point in prehistory is the question of how life rebounded after Armageddon struck. With mosasaurs absent from the face of the Earth, smaller reptiles that survived – snakes, crocodylians and sea turtles – moved into the seas. "The initial recovery does not resemble a modern marine ecosystem," he says. "It's more of a transitional ecosystem of marine reptiles, and then something happens to them."

"The creatures that move in get wiped out and it's not quite clear why. One possibility might be that the early movers

don't have a long-term advantage and other species which appear later ultimately become more specialised, and more successful, outcompeting everyone else. The other possibility is that there may have been changes in the climate, and they couldn't cope with that." Eventually, the giant sea snakes were wiped out, the crocodiles were restricted to fresh water habitats and then whales took over.

Comparing how different species were affected is something that Nick and other scientists at Bath are examining. At the time of writing, he's busy recruiting a team of researchers to investigate the severity and recovery of various living things, providing a better picture of what happened after the extinction event. Although Nick will probably keep the fossil shed, most of the work will be carried out in the Milner Centre for Evolution – a brand-new facility funded by a £5 million gift from graduate Dr Jonathan Milner. Due to open in 2018, the Centre aims to answer fundamental evolutionary questions and bring evolutionary science to a wider audience.

The project Nick is working on will also study the processes that generate diversity.



This engraving from 1798 shows the discovery of the mosasaur in Maastricht, Holland. It was later captured by French Revolutionary forces and taken to Paris. The mosasaur was the first giant prehistoric reptile to be found and described by science

Mosasaur illustration: Jaime A. Headen  
Chenanisaurus barbaricus illustration: Dr Nick Longrich  
Maastricht Mosasaur skull illustration and discovery engraving: Science Photo Library

"[Charles] Darwin believed that evolution was affected by the gradual action of everyday processes," he explains. "But he dismissed extreme events like this. He lived during the Victorian era – a period of relative stability and peace – so he didn't see any major wars or political upheaval. That was his norm; things stayed the same."

According to catastrophists like French zoologist Georges Cuvier, however, it was natural disasters that explained the disappearance and emergence of life forms. Unlike Darwin, Cuvier lived during the French Revolution that saw the monarchy overthrown. "Even the *Mosasaurus* he studied only came to the Paris museum because Napoleon's army seized it from Holland," adds Nick. "I think he must have realised how the world could change in the blink of an eye."

So what changes the world: slow and steady action, or a single event? The Earth has seen five mass extinctions, but many smaller ones have occurred throughout

"If they had not been wiped out by the asteroid, they would still be here today"

history. After all, more than 99 per cent of all organisms that have ever lived on the planet are extinct, while humans have only been around for just 0.004 per cent of the planet's history. "It may well be that in the long term, these extinctions actually generate diversity," says Nick.

"It's been argued that some of the most destructive periods in human history, say WWII, gave us so many technological advances and changed the world on multiple levels. Similarly, did the Black Death lead to the Renaissance? Maybe shaking things up gives us the opportunity to build something better in the aftermath."

In Nick's shed full of the fossils of long-dead creatures, it's humbling to think that if the asteroid had deviated by a mere degree, they would still be swimming around Earth's vast oceans, and humans wouldn't exist. "Even when things seem at their worst," he says, "that's when opportunities and possibilities open up." We'll leave the question of how and why for Nick and the scientists at Bath to figure out.



# 200



AS PLANS ARE UNVEILED FOR A NEW £60 MILLION RESEARCH FACILITY,  
WE REFLECT ON OUR ROOTS AND REVEAL WHAT THE FUTURE HAS IN STORE

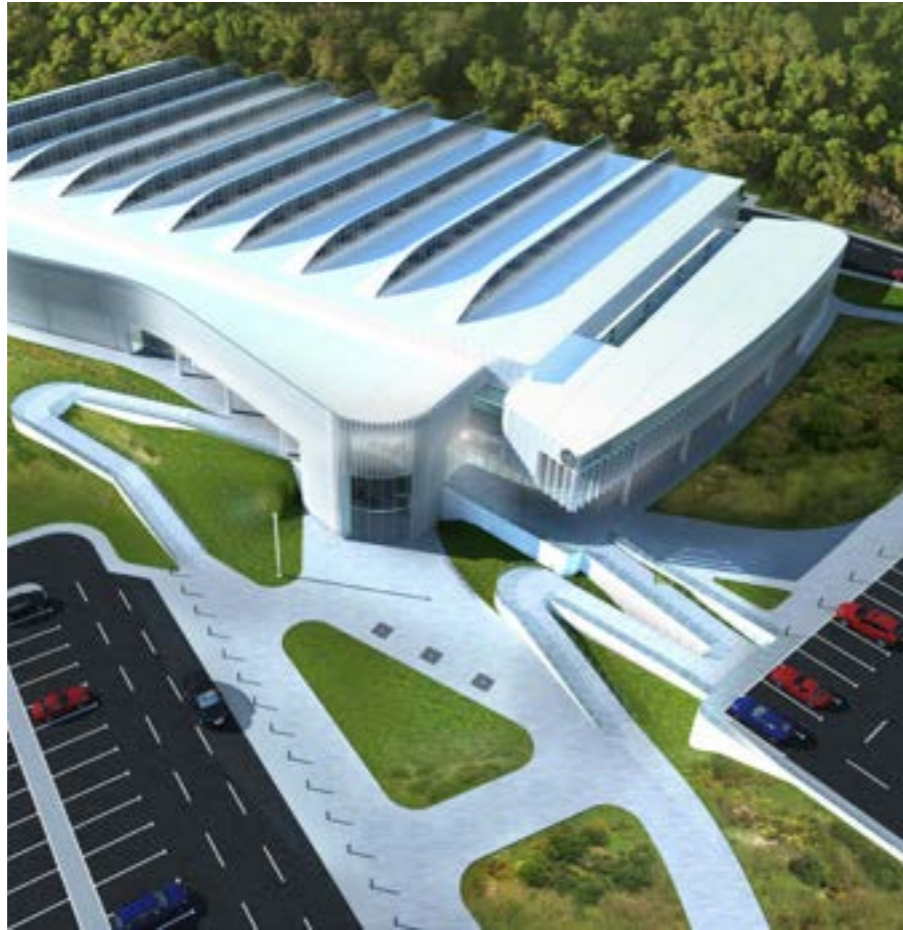
Words **Jodie Tyley**

**THE AMOUNT IAAPS WILL STIMULATE IN RESEARCH AND DEVELOPMENT BETWEEN 2020-2025.**

**£67M**

**W**e've come a long way in 50 years, from a hilltop field to a world-class institution, and now Bath is set to expand once again. In 2020, we'll be opening a new cutting-edge research facility in the Bristol area, which also happens to be where it all began...

The year was 1851 and Prince Albert had inspired a nation with his Great Exhibition – a glittering glass palace housing industrial wonders from around the world. Printing machines, a hydraulic press and steam-hammers – the products on display had a huge impact on society. The importance of industrial training spread from London to the south-west and in 1856, the Bristol Trade School was established. This was the first incarnation of the institution that would become the University of Bath, some 110 years later. The School provided an education in sciences and technology which, along with humanities and management, make up most of the subject areas we teach and research today.



Thirty years on, the Trade School had grown into a college of science and technology, and in 1966 we received our Royal Charter, making us a university. Our founding mission – to “advance learning and knowledge by teaching and research, particularly in science and technology, and in close association with industry and commerce” – still resonates today.

Our partnership ethos underpins our research, and over the next five years we will build on this rich heritage of invention and enterprise. Going forward, one of the significant areas of investigation is energy storage – part of the ‘eight great technologies’ the government is backing to propel the UK’s future growth. To combat climate change, the world needs to reduce carbon dioxide emissions by at least 50 per cent by 2050, and key to that is producing clean and efficient vehicles. This research is at the heart of our latest exciting venture.

The University has teamed up with South Gloucestershire Council to purchase the Bristol and Bath Science Park in a joint £18 million bid. The shared vision is for the Park to become a place where science and technology enable innovation to prosper, business to grow

and people to thrive. Crucially, the 36-acre site will be home to the University’s new Institute for Advanced Automotive Propulsion Systems (or IAAPS for short).

Bath was recently awarded £38.9 million to develop this facility, which is projected to stimulate over £67 million in research and development between 2020 and 2025, create a turnover of £800 million for the UK automotive sector and support 1,900 new jobs.

Alumnus and University Vice-President, Professor Steve Egan CBE, explains why Bath is best-placed to lead on such a monumental project: “We have an engineering and science background, and over 40 years of experience in responding to automotive challenges,” he says. “We have relationships with global players, and we also have the ambition to develop a facility that is one of the best in the world.”

The University has a proven track record in automotive research with our Powertrain and Vehicle Research Centre (PVRC). Recently the Centre helped develop the first Ultraboost engine that delivers the power of a large V8 engine with a fuel economy of one that’s up to 65

**THE TURNOVER IAAPS WILL GENERATE FOR THE UK AUTOMOTIVE SECTOR.**

**£800M**

per cent smaller. The University has already collaborated with manufacturers such as McLaren, Ford and Jaguar Land Rover to name a few, and will continue to work in partnership with them to ensure the facility meets industry needs.

A significant challenge is tackling the shortage of skills in the automotive sector. A number of industry reports have identified this as an issue which, if ignored, could slam the brakes on the UK’s success in this highly competitive arena. IAAPS will endeavour to meet these growing demands, which are in many ways similar to those faced by the Bristol Trade School over 150 years ago.

“We can have the great knowledge and the great technologies, but unless we have the great people, industry will go elsewhere,” says Steve. “What this facility will enable us to do is to train people at various levels, from apprenticeships to advanced PhD researchers, fulfilling the needs of industry right across the range.”

Plans for the new site in South Gloucestershire also include building on existing businesses based at the Park. This includes the National Composites Centre (NCC), owned by the University of Bristol, whose mission is to accelerate the growth of UK industrial output. Bath will work closely with Bristol to exploit the synergies across the NCC and IAAPS.

Our President and Vice-Chancellor, Professor Dame Glynis Breakwell, sums up the impact it will have: “Purchasing the Science Park is an important step in the realisation of our University Strategy. It will enable us to increase our research activity to address global problems. It will contribute to business and technology development across our region, as well as providing additional capacity and facilities to complement those on our campus, in London and in Bath city centre.”

Since work was completed on our very first building in 1965, now known as 4 South, the University has continuously invested in new buildings and facilities. Take, for instance, the Sports Training Village that has become one of Europe’s best training centres for top-level athletes;

**“This facility will enable us to train people at various levels”**

Vice-President Professor Steve Egan CBE

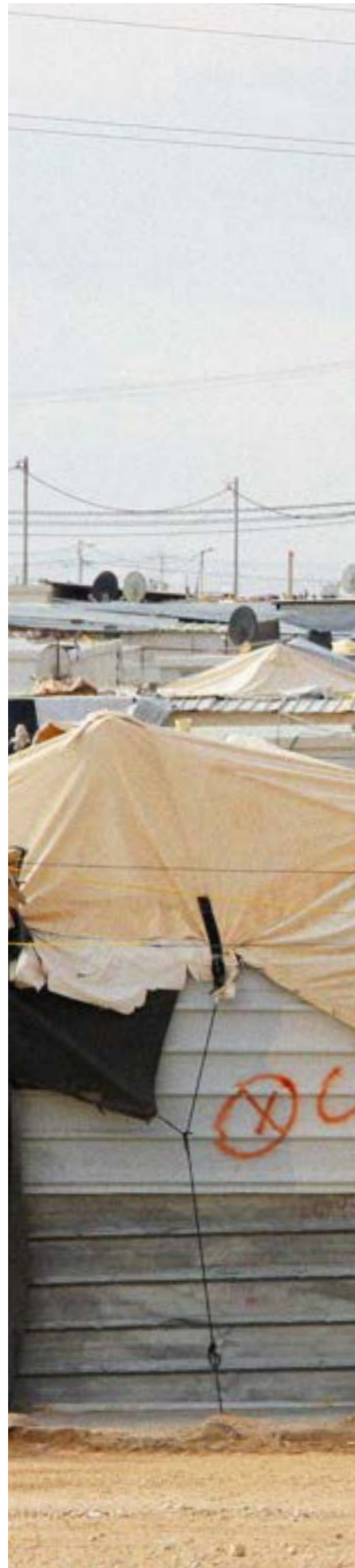
**THE NUMBER OF NEW JOBS IAAPS WILL CREATE.**

**1,900**

or The Edge that provides a dedicated space for arts and events. But as our first Chancellor, Lord Hinton of Bankside, once said: “A university is not merely bricks and mortar; it is a community with ideals and traditions.”

A lot has changed in 50 years, but those founding principles set out in the Royal Charter have remained. The “close association with industry and commerce” has been a constant feature of our teaching and research. Long before universities sought funding from business, Bath worked closely with companies on joint projects – leading to new technologies, pioneering approaches to research and opportunities for students. Our vision for 2020 epitomises this goal and will see the University continue to deliver, long into the next era of growth and innovation.

**For more information about IAAPS, please visit [www.iaaps.co.uk](http://www.iaaps.co.uk).**



# GIMME SHELTER



## HOW OUR RESEARCHERS ARE BUILDING BETTER FUTURES FOR REFUGEES IN JORDAN.

Words **Rob Breckon**

**B**eing forced from your home, leaving all that you know behind and fleeing your country is something unimaginable to many of us living in the West. But humanitarian crises such as civil wars and natural disasters mean that more than 65 million people – an unprecedented number – are experiencing just that.

Refugee camps which we see fleetingly on news reports are hard places for anyone to live. Populations can reach 50,000, temperatures fluctuate from -10C to 45C and, with meagre provisions and the most basic of shelters, day-to-day life is anything but normal.

That's where our researchers are stepping in. Drawing on our expertise in architecture, civil engineering and international development, we've joined forces with experts on the ground in Jordan to radically rethink how shelters are designed and constructed.

Dr Dima Albadra knows more than most people here on campus about the challenges faced by the effects of war. Dima was born and educated in Aleppo, the epicentre of the fighting in Syria. In 2010, she graduated from the University of Aleppo with a first class degree in Architectural Engineering and came to Bath to begin an MSc in Environmental Design.

"I only lived in Syria during peace time and left six months before the revolution and then the war," Dima tells me. "It was all a bit out of the blue. Living in Syria was very similar to my current life here in the UK. Of course the contrast now is far starker."

"I was inspired to study architecture by my mum who's an architect. I always loved art as a child, and maths and sciences were my favourite topics at school, so architecture seemed the perfect major that combines art and engineering."

Thanks to a scholarship, Dima stayed in Bath to complete a PhD. She's now a key researcher for a new project, led by Professor David Coley alongside Dr Jason Hart, which will have a direct, positive impact on refugees living in camps, particularly Syrian refugees living in the Zaatari and Azraq camps in Jordan.

Dima and the team are working with colleagues at Jordan's Princess Sumaya University for Technology and German Jordanian University, and Mersin University in Turkey, to design and build new types of housing which are better at dealing with the harsh climates experienced in the camps.

"As part of the pilot 'Healthy Houses' project last summer, we spent time in a Jordanian refugee camp recording climate data and speaking with the camp's occupants, and found the existing shelters were causing a number of problems," Dima explains. "Shelters in refugee camps can have different guises, from caravans to tents to self-made shacks using locally available materials such as metal sheeting or timber structures. The problem with these shelters is that they are ineffective against very high or low temperatures, poor at preventing condensation, suffer from poor air ventilation and, because many of the shelters have only one room, they prevent inhabitants from having any privacy."

"The extreme temperatures mean that in the summer, occupants are forced to shower fully clothed to try and cool their body temperatures down from the evaporating water, which is understandably not a comfortable way of living. Conversely, in the freezing winter months, occupants have to huddle together around a small gas heater to try and stay adequately warm."

The Healthy Houses project has received £1.5 million funding from the Engineering and Physical Sciences Research Council. Our research team will be conducting the largest-ever global study investigating the thermal, air quality and social conditions in the camps. They will be speaking with many of the refugees, as well as aid

**"In the summer, occupants are forced to shower fully clothed to try and cool their body temperatures down"**

agencies such as the United Nations High Commissioner for Refugees, to better understand how housing could be improved. They will then combine these findings with expertise in building physics to create new shelter designs.

"We need to come up with a number of designs appropriate for different locations and environments," says Dima. "We are going to look at using both modern materials like foam and aluminium, and more traditional materials such as mud, clay and bamboo. These next-generation shelters will stay warm in the winter and cool in the summer, transforming the lives of the occupants."

Reflecting on her last visit to the refugee camp, where these photos were taken, Dima explains how it felt to be interviewing fellow Syrians who had lost their homes and livelihoods, and why she is motivated to ensure this project makes a real difference.



"I can only imagine the burden of fleeing from your home and having to cope with the extreme temperatures and climates experienced in the refugee camps," she says.

"Spending time in the camp and being there with the refugees, many of whom are compatriots, was quite hard and emotional, but it felt rewarding to know that I am part of a project that will hopefully make a real difference to their standards of living. Aside from speaking the same language, I was able to relate and really understand what they had been through."

Dima speaks regularly with her parents and family, but the ongoing civil war has made it impossible for her to return home since she left Syria seven years ago.

"As a result of the conflict, my family and all my friends had to leave Aleppo and move to a safer city. I'm happy that I've been able to keep in touch with many of my friends from university in Aleppo. Most of them are no longer in Syria and we chat regularly."

Over the next three years, 20 possible shelters will be created, with six designs built in the UK to test construction times, and then thermally tested in a climate chamber at the University's Building Research Park in Swindon.



Photography Scarlett-Tiger Coley

The most promising of these designs will then be transported to Jordan to test in local conditions and obtain feedback from camp occupants and aid agencies.

"Our primary aim is to design shelters which are suited to extreme climates," Dima says. "Prolonged exposure to high temperatures can be fatal especially for children and the elderly; freezing temperatures also result in all sorts of illnesses. These new shelters may not provide the occupants with comfort as you or I would know it, but they will go a long way in mitigating the health problems associated with current shelters."

Jordan is a country with which we have developed a close working relationship. Our Department of Education is working with the Amman Baccalaureate School to deliver our MA courses to teachers and school leaders who wish to improve their qualifications. It's a partnership that is not only strengthening potential international research collaborations and encouraging more Jordanian students to apply to Bath, but also helping Jordanian teachers to provide displaced children with an education and a better chance in life.

**"Living here and being safe, while watching horror stories unfold from Syria, has been really difficult"**

When I spoke to Dima she was firmly focused on her future (including planning her wedding). She explained how she has dealt with pursuing a career and a new life in the UK, and how she has stayed strong in such worrying times.

"Living here and being safe, while hearing and watching horror stories unfold from Syria for the past seven years, has been really difficult. For my own sanity, I had to stop following the news around a year ago; I deleted my social media accounts and I was finally able to focus on living."

"One day I'll never forget was the bombing of the Architecture faculty at the University of Aleppo. It was around three years ago, on the first day of summer exams. Many students died and I was heartbroken, it was my university after all. The next morning I was invigilating on the first day of exams at Bath. Walking in and seeing young students revising and waiting to be let into the exam hall was a very difficult experience – all people are the same."



## SUPPORTING REFUGEE STUDENTS

The University will provide funding, accommodation and support for refugee students. Two postgraduate taught students with asylum seeker status will have their fees waived and be given a £10,000 bursary, provided by the Alumni Fund. In addition one Gold Scholarship will be reserved for an undergraduate with refugee status.

"The scale of the crisis and the human misery caused in conflicts such as in Syria is overwhelming," says Professor Peter Lambert, our Pro-Vice-Chancellor for Learning & Teaching. "The challenge is to do something meaningful and sustainable that will have a tangible impact. I am proud to be part of a community which has shown such dedication and commitment to addressing the key humanitarian crisis of our times."



STEPH GREW UP LESS THAN FOUR MILES AWAY FROM THE UNIVERSITY BUT UNTIL RECENTLY HER LIFE WAS HEADING IN THE OPPOSITE DIRECTION. WE FIND OUT HOW A CHANCE MEETING IN A PUB, AND A SCHOLARSHIP, TURNED HER LIFE AROUND.

Words Rachel Skerry

# OVERCOMING THE ODDS

“With the whole World Heritage thing, people think that Bath is all *Downton Abbey*. They assume everyone lives somewhere like the Crescent, with lots of money. I lived in a small, two-bedroomed, mid-terraced house on a council estate, where there were kids with ASBOs on my street and cars would get nicked. So it's not how people perceive it.”

Steph Calley knows a lot about perception. She's studying for a degree in Psychology at the University and has spent the last three years calmly overturning other people's views of what she can achieve – and some of her own too.

It's fair to assume that Steph's experience of Bath is different to most of her peers on campus. She grew up in Odd Down, a small suburb four miles from campus. It's not somewhere that most students would be familiar with, unless they had stopped at the nearby Park & Ride to get the bus to Open Day. Odd Down lies just outside the city's World Heritage boundary and, when Steph takes me there, it feels like it's a world away from campus as well.

University isn't something that people like Steph normally do. Or at least that's what she implies. “The only people my family know who have a degree are the GP and the dentist. And to them that's ‘other people.’” Steph's mum was a waitress and her dad was a bus inspector. He suffered a stroke when she was five and two years later her parents split up. “I wouldn't say we were poor, but there wasn't a lot left over at the end of the month.”

Steph lived in Odd Down until she was 16. Before she went to secondary school, she wasn't allowed past the end of the street, but this didn't matter because all her school friends lived on the same road and spent their time playing in each other's gardens.



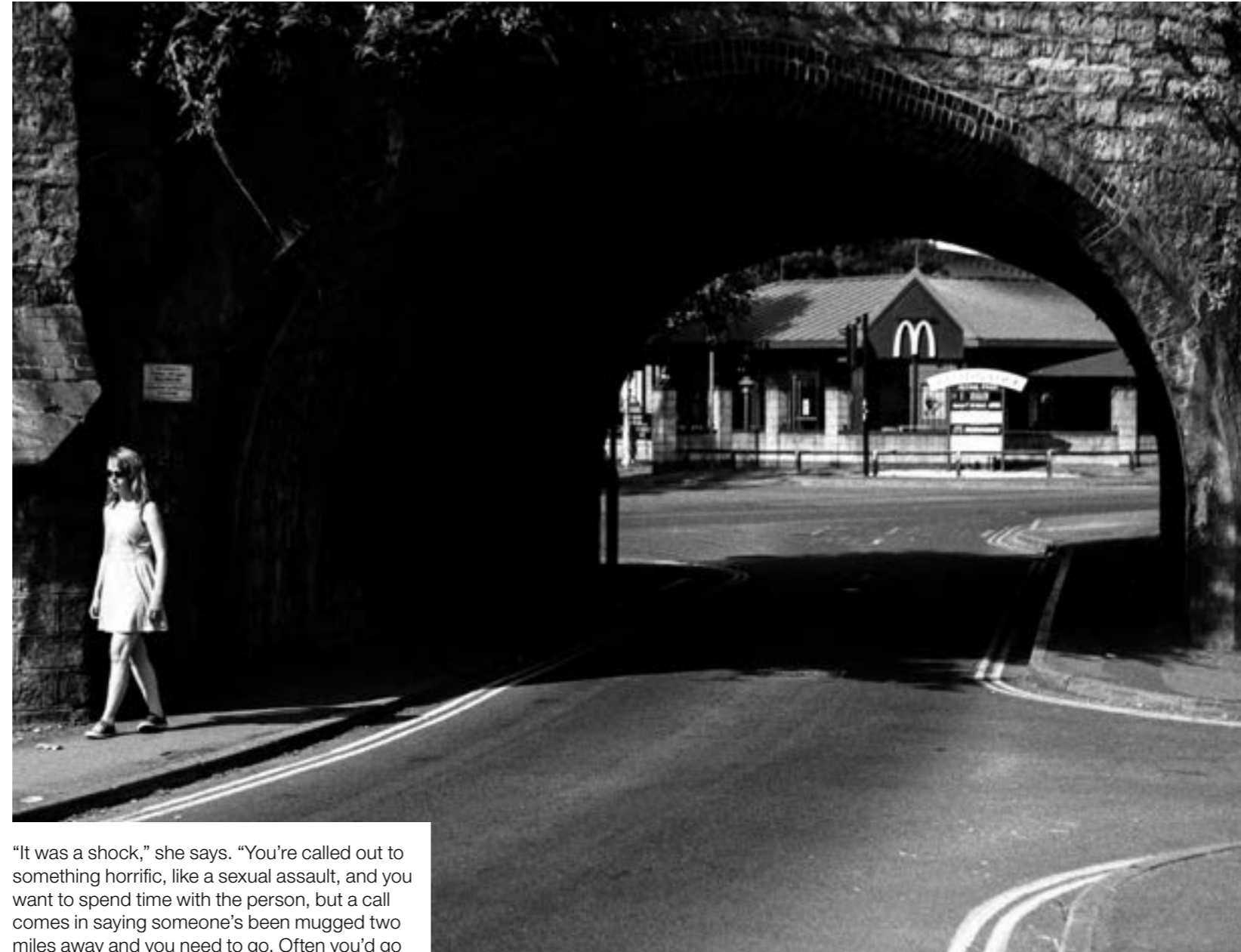
And it was these surroundings that inspired Steph's first ambition to become a police officer. "The police were always in our street, doing door to doors, because someone had been attacked or something had been stolen," she says, matter-of-factly. "I had always wanted to help people and I thought that was a way to do that."

## "I needed a way out"

Although she worked hard at school and got good grades, knowing that she didn't need a degree to join the police service meant she lost focus when she got to sixth form. "We had a new head who didn't know me," she says. "I think she assumed that I was lazy or I wasn't very clever. She asked if I was going to go to university, and when I said no, she said, why are you here? And I thought, why am I here?"

At the same time, Steph had found a part-time job in McDonalds, which opened her eyes to a world beyond what she was increasingly seeing as the confines of school. "I loved having my own money, and getting to know people. I started going to the pub with friends from work, most of whom were older than me, and it all became more interesting than being at sixth form." So, with one A Level – "Music Tech, which I got a D in!" – she left.

Steph spent three years serving up Big Macs, and being promoted to shift manager, before her patience finally paid off. Her application was accepted to become a Special – a volunteer police officer. But what Steph had at first seen as, in her words, a 'glamorous' job, turned out to be just the opposite. When I asked why, I'm taken aback at how animated she becomes.



"It was a shock," she says. "You're called out to something horrific, like a sexual assault, and you want to spend time with the person, but a call comes in saying someone's been mugged two miles away and you need to go. Often you'd go to a red flag house, which meant that there had been incidents there before, domestic abuse. Someone would phone up, one partner had been beaten up the other one, but they don't want to press charges so you leave. But then a week later you're back at the same address."

"There were a lot of people who had come in to McDonalds as customers and then you'd see them on the street, while you're in uniform, doing all kinds of things. And you're in someone's home, and you see how people treat each other. You turn up on their worst day and you can't make it better. And after a while that really gets to you. You don't make a difference."

Feeling increasingly disheartened, Steph left her dream career after two years, just before her 21st birthday. She picked up a job in Boots, but deep down she knew that it was no Plan B. Then one evening she bumped into a friend in the pub, who told her she was going to do an Access to Higher Education course so she could study nursing.



Thankfully, Steph did get in (she's even got used to the bendy buses now – phew!) and she's thriving with help from a Lloyds scholarship, one of only 15 given out to Bath students each year. "I thought I was pushing my luck trying to get into Bath, let alone getting this as well," she laughs when she remembers getting the call from Lloyds Banking Group telling her she had been accepted. "My boyfriend was just finishing work and I went to meet him, and I was crying at the train station. He said, 'it looks like we've had a row'. I said, 'I don't care, I'm so happy!'"

Steph receives a bursary to cover her living expenses, and she describes her scholarship as four years of financial security.

## "I remember turning into the drive and seeing the University crest and thinking, this is nice! I felt that I needed to be here"

Steph had never heard of it but, intrigued, she decided to find out more. "I thought, I'm pretty smart, I've got the capacity to do something else. I couldn't work in retail for the rest of my life and I needed a way out from that."

Steph enrolled on an Access to Higher Education course at Bath College, passed her diploma and for the first time in her life felt that university was within reach. She paints a vivid picture of coming up to campus for her interview. "I got on a bendy bus for the first time in my life, which was horrific! I was sat in the bend, and I thought, who designed this?" she laughs. "But I remember turning into the drive and seeing the University crest and thinking, this is nice! And, am I dressed smartly enough? I felt that I needed to be here and I'd be gutted if I didn't get in."

But dig a little deeper and it's much more than that. Steph is about to spend her second summer working for Lloyds (she's hoping to begin a career in HR after she graduates), and she volunteers with school children at the city's Holburne Museum which, she admits, has awakened an interest in art that she never knew she had.

And what she calls her 'surreal moments' keep on coming. She's been to Windsor Castle ("like Disneyland!") to meet alumni and friends who support students like her, taken tea with the Chancellor and honorary graduate Jenson Button, and spoken in front of a thousand people in Bath Abbey at last year's 50th birthday celebrations.



**“This is how far I’ve come”**

“The Abbey was very poignant – it made me understand how far I’d come. If you take me back five years there was no way I would have ever done anything like that. It makes me realise there are so many opportunities, and that it’s only me that’s stopping myself.”

Steph continues to exceed her own expectations, but she admits that university is an idea her family is still getting used to. “I don’t think they know how much having a degree can open doors because no one they know has gone to uni,” she explains. “They’re curious as to why I’m spending so much time not earning much money. And I’m 25 and I live at home; if I’m still there at 30 they might start getting cross!”

“Dad was different. Since he had had a stroke, he didn’t always understand what I was doing or why, but he was really proud of me.” As her dad had become increasingly frail and had stopped going out, Steph visited most days to shop, clean and cook meals for him. Her scholarship gave her the freedom to spend time with him before he died. “I didn’t have to worry about part-time work, or whether I could afford to get the bus,” she says. “These were simple, everyday things that changed my life, and they changed his life as well.”

As an advocate for the difference university can make, you couldn’t choose someone better than Steph. She’s passionate about ensuring that other students, with children or parents to look after, can benefit from the opportunities she has had. “It makes so much difference. It pays for childcare, or it just means that the pressure’s off for a couple of months while you’re studying.” It’s why she spends her Fridays working for our Widening Participation team, to encourage more students like her to overcome the odds. And, in what’s a striking reminder of her old life, the team is based in the University’s Virgil Building in Manvers Street, which, ironically, used to be Bath police station. “I’m in what was the Chief Superintendent’s office,” she laughs. “The empty trophy cabinet is still in the corner!”

**Find out more about the difference a scholarship makes at [lookfurther.bath.ac.uk/gold-scholarships](http://lookfurther.bath.ac.uk/gold-scholarships)**

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**MEET THE TEACHER**

Shane Horgan meets Professor Semali Perera

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**BATH'S BEST...**

Night out

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**HAPPY BATH-DAY!**

The best of the festival and reunion



**Another Muppet**



**For President ?**

1978: it was the year the first IVF baby was born, *Grease* hit cinemas and a Muppet ran for President of Bath SU. Sam Theagle promised to “restore hope and confidence to the disillusioned student body,” adding, “if I am not elected then the very survival of student democracy could be threatened.” His seconder was Mick Bendall (BSc Applied

Biology 1978) who, coincidentally, also seconded the ‘fluffiest and cuddliest’ Presidential candidate, Edward D Beare, in 1977. While Edward was kidnapped, Sam suffered a worse fate and was assassinated during the hustings. Share your memories with us by emailing [alumni@bath.ac.uk](mailto:alumni@bath.ac.uk)



# MEET THE TEACHER

Eighteen years after he graduated we invited **Shane Horgan** back to campus to meet his former tutor, **Professor Semali Perera**.

**Shane** (BEng Chemical and Bio Process Engineering 1999) is Partner at PwC in London. He edited his class yearbook for Chemical Engineering, in which he refers to Semali as “famous for being incredibly nice.” (The rest of the yearbook’s content isn’t so forgiving).

Semali has been recognised for excellence both in Chemical Engineering teaching and research innovation. Most recently, she won the Academic Award in the UK’s biggest programme championing women in technology, the 2017 FDM Women in Technology Awards.

**Sh** It was blind luck that I happened upon Bath.

I’d done well in the Irish Leaving Certificate, but hadn’t got a place to study engineering in Ireland so I had to go through clearing. A list of places at English universities were printed in the paper, but it took me and my dad ages to find out how to dial England (one of my uncles had to explain)! So we worked our way down the list alphabetically. Aberystwyth didn’t answer the phone and Bath was next on the list.

“I interact with students a great deal so I do worry about them”

Semali

**Se** I was Admissions Tutor for Chemical Engineering. Back then we invited the students to visit, interviewed them and then offered them a place. I could see Shane’s commitment to doing chemical engineering, otherwise why would he and his dad come over all the way from Ireland? He had good manners as well!

**Sh** Well brought up!

**Se** You had a good interview technique, and you were very polite. Well suited for Chemical Engineering.

**Sh** I was very nervous that day.

**Se** I remember you came to visit campus in the morning with your dad

and I asked if you could let me know whether you would like to join the course the next day. It was only a few days before the course started. What made you decide you wanted to come to Bath?

**Sh** You emphasised that I would spend a lot of time in the lab applying what I learned in lectures, which appealed to me.

I really liked the city and I liked the feel of the University because it was quite small and contained – not a massive sprawl like a Manchester or a Leeds. In the back of my mind I didn’t want to repeat a year of school. And I wanted to be near the Fishguard to Rosslaire ferry, because that was my route home!

**Se** Were you homesick when you arrived?

**Sh** Very. It was only the second time I had ever left Ireland and my mum had passed away that January.

I sat in my room for the first two nights wondering how you got to know people. Then Steve Grainger, who became, and still is, one of my best friends, said: “How come we haven’t seen you out at Freshers’ week?” I said: “What’s Freshers’ week?” And he said: “It’s where we go and get p\*\*\*\*d with all the other first years!”

By the time I got to the end of my first year I loved it. Monday night in Cadillacs – a pound a pint. Wednesday night was Sports Disco, Thursday night in T’s. Then there was Swamp, I think it’s Po Na Nas now? It was a horrible dingy place with luminous animals on the walls, but the best fun ever.

I was 17 when I started uni, the youngest first year by about nine months. I remember going for a big night out when I was legally allowed to drink!



**Se** A couple of times in the first year, your dad phoned me, without telling you, to find out how you were settling in. I still remember those conversations I had. I said you were doing fine, I didn't see any concerns. I have spoken to a few mums and dads before.

**Sh** You always had an open door. At the end of the day it was a teacher-student relationship, but it was very friendly and supportive. We felt the staff had our backs and wanted us to do well. I think it was one of the massive strengths of Bath. I suspect in the bigger universities with 400 or 500 students in a department in a year, that's not possible.

**Se** It was more like a family. We have 160 students now. But we do see our tutees every week in first year and we try to do our best in supporting them through the system.

I interact with students a great deal so I do worry about them. It's a big responsibility. We have many, many conversations with our tutees, trying to resolve some of their personal issues, or an academic issue, confidentially. We take it very seriously and if a student doesn't attend some of the lectures we check whether they're OK.

**"We felt the staff had our backs and wanted us to do well"**

Shane

**Sh** I had a lot of catching up to do because with the Irish Leaving Cert you do more subjects but you don't do them to the depth of A Levels. I was probably at a disadvantage to someone with A Levels in Chemistry, Maths and Physics.

**Se** Especially being so young as well.

**Sh** Having come straight from school, I still set aside time every day to work – I didn't get to uni and immediately hit the bar! I went to tutorials and if I didn't understand something I'd ask and you'd give me an answer. So whatever gap there was, I closed it relatively quickly, although certain subjects like Process Control were always miles over my head!



I have such good memories of Bath, particularly final year. My individual project was brilliant because it was so practical. Basically I had to see if I could clean water using different concentrations of milk and pumping it through a straw bed. Then our final exam was the general paper, which you couldn't really prepare for. It was a glorious summer's day like this, and it was the first day of everyone else's exams. We did the test then sat on the Parade Bar terrace, which overlooks the exam hall, having our first beers and watching everyone else streaming in.

I remember going to your office on second floor in 4 West to get my results.

**Se** All the staff would be in the department to congratulate the students. Nowadays you just log in online and get your results – the personal touch is missing.

**Sh** I sat down and you said: "You almost made it. You were so close!" and I thought s\*\*\*, I've got a 2:2, but then you said: "You've got 69.6 per cent!" I was delighted. I wasn't one of those students who would have died in a ditch for a first,

I was just happy to get a 2:1 from a university like this.

I meet graduates now and they've developed their first app and sold it to Google by the time they're 21.

**Se** I think that expectations have changed. Students need an A\* and two As to get on to Chemical Engineering now.

**Sh** I wouldn't have got in now.

**Se** But I don't see the difference in the quality of the graduate that we produce now. I mean, look at you, we're proud of what you have done.

**Sh** I found final year a lot easier having been in industry for a year, at Unilever Wall's Ice Cream plant in Gloucester. Looking back, that was a really important year for me. You get to ask, "Do I actually like this industry?"

I think the University should definitely keep doing placements for as long as companies are keen to do it. It's good for companies to give students a chance to experience a year in industry. When I think of the placement I did, they got someone who was bright, willing to work hard, did lots of good projects for them. You definitely pay for yourself.

**Se** How did you end up at PwC?

**Sh** I did an MPhil at Cambridge, then worked at Unilever. Now, even after 12 years at PwC, it's still the thing when I introduce myself to clients. Oh you ran a factory at Unilever? It's instant credibility. I was the man who brought the nation chicken dippers and potato waffles for a while!

My team at PwC looks at manufacturing facilities and supply chains. Are they efficient? How well invested are they? What could clients do to improve them? I've probably been to see hundreds of manufacturing facilities down the years, everything from ice cream to beer to vodka. The chemical engineering always helps.

**If you would like to get back in touch with your former lecturer, tutor or supervisor, email [alumni@bath.ac.uk](mailto:alumni@bath.ac.uk) – start your message with 'Meet the teacher'.**



## LEADING QUESTIONS

**Ginette Boobier** (BSc International Management with Spanish 2007) lives in Chile, South America, with her husband and two children. She has worked for Accenture in the UK and then as a Corporate Social Responsibility consultant for one of Chile's leading companies. She is currently taking time out to raise her children. She set up a Bath alumni network in 2014, which she co-chairs with Lewis Willoughby, a fellow SPIMML graduate.

**What do you remember from your time at University?**

Long nights in the library... followed by fun times out partying, especially on nights like the Roman Romp, and, of course, the start of so many great friendships.

**What brought you to Chile?**

Adventure initially, as a different option to (the much closer) Spain for my placement year, although I returned in 2010 for love.

**Why did you become a volunteer for the alumni network?**

After an evening with Bath's Pro-Vice-Chancellor for Internationalisation at the British Embassy here in Santiago, I realised that there wasn't currently a network here and thought, why not?

**What is the best thing to come out of your time as a volunteer?**

Making new friends and being able to share my knowledge and experiences here with those students currently on placement here in Chile.

**What's your advice for anyone thinking about joining an alumni network?**

Just do it. And if there isn't one near you, create one. You would be surprised by the amount of Bath alumni who may be based nearby.

**Who do you most admire?**

People who take a leap into other cultures. I saw a great quote the other day that really sums this up for me: "Do you know what a foreign accent is? It's a sign of bravery." (Amy Chua)

**Is there anyone you'd like to thank?**

Pro-Vice-Chancellor Professor Peter Lambert for encouraging me to visit South America, and International Relations Manager Silvana Stanford for her support while doing so.

**How do you relax?**

With two young children, finding time to relax can be challenging, but nothing beats a good book, a cup of tea and a chocolate digestive (imported from the UK obviously!).

**What's your favourite place in the world?**

Over the years I have visited some pretty cool places around the world, and can recommend many a gem throughout Chile, but my favourite place has to be sat next to the pool in my back garden in Santiago, with clear blue skies above and a view of the Andes in the background.

**What's your favourite joke?**

What's black and white, and red all over? A sunburnt penguin.

35  
THOUSAND

alumni live and work outside the UK.

WE HELD  
46

events outside the UK in our 50th anniversary year.

**If you'd like to organise an event where you are, we can help. Please get in touch at [alumni@bath.ac.uk](mailto:alumni@bath.ac.uk) 01225 386824**

# ASK AN HONORARY GRADUATE

Formula One legend **Jenson Button MBE** (Honorary DEng 2016) talks about life on and off the track.

**Engineering and technology has always been a big part of Bath's heritage. What do you think has been the biggest breakthrough in the automotive and motorsport industry, and what are you most excited about seeing in the future?**

I've been fortunate enough to be a part of Formula One for over 17 years and as a result have been surrounded by world-class engineering and engineers so to pick out one moment or one specific aspect would be very tough. The constant development is incredible to watch, so much so that regulations had to be put in place to effectively halt the increase in speed and power that was being developed. In terms of the future I'd say that what will be achieved in terms of both electric cars and also autonomous driving will be mind-blowing – the rate at which technology now moves is utterly incredible.

Question from **Will Minter-Kemp**, student in our Department of Electronic & Electrical Engineering.

**What was the most demanding race of your career?**

In terms of what was thrown at me I would probably say Canada 2011. From last place to first in the final 30 laps, along with multiple pit stops, a drive-through penalty, some collisions, a red flag, wet weather and a lot of overtaking! I managed to keep my composure and just work my way through the pack. It

was a huge amount of fun but equally challenging along the way.

**When you won the Canadian Grand Prix in 2011 and almost ran Lewis Hamilton off the track, was he speaking to you after the race?**

Lewis was absolutely fine. It was two drivers, who wanted to win, going at it. A true racing incident.

Questions from **Professor Steve Ward**, Head of our Department of Pharmacy & Pharmacology.

**“People underestimate the physical elements of Formula One”**

**What does your body have to endure while racing, and how do you prepare for that?**

People underestimate the physical elements of Formula One and how fit you need to be. It's a constant physical battle with the car while also enduring a lot of g-force along the way. The more tired you become the more likely it is for you to make a mistake through a drop in

concentration. I've worked a lot on my fitness over the years through training for and competing in triathlons, and that's definitely had a positive impact on race weekends.

Question from **Jackie Snowden** (BSc Physics 2012).

**Who was your greatest teammate and why?**

I've had a lot of them! Early on in my career I had some very tough teammates in terms of atmosphere, with Ralf Schumacher and Jacques Villeneuve. I was young and they didn't like a young driver being in the team. It was probably more difficult with Jacques. But by mid-season it was fine, the atmosphere was great and we had a lot of fun.

In terms of outright pace, Lewis (Hamilton). He could be massively quick in qualifying and you'd think, 'Where the hell did that come from?' But he could also be a long way off. You could see his talent, but it felt like it wasn't controlled enough. Suddenly you think you're going to beat him in qualifying and then he beats you by four tenths. But in the race he disappears, you're leading and you're like, 'Where's he gone?' It was inconsistent, but unbelievably quick. Possibly the quickest guy to drive a Formula One car that I've seen race.

In terms of the most rounded driver, it would be Fernando (Alonso). In terms of the way he works with the team, he's very intelligent and he knows how to get



his way! In a race situation, he's always there, whether he's in front or behind, you can't get rid of him! I've had three World Champions as teammates. Lewis is the quickest, but for me the most complete is Fernando.

Question from **Sarah Kilgallon** (BA MLES Spanish and ab initio Italian 2011).

### What do you think was the main reason for your success in the 2009 World Championship?

We knew we had a competitive car when we turned up to the first race in Melbourne – what was key for me was to beat Rubens, my teammate at the time, which was not easy as he was, and still is, the most experienced F1 driver of all time, and he was as hungry to win as I was. So that was key and I managed to win six out of the first seven races and get that lead on him, which was crucial when it came to the end of the season and we were fighting it out for the World Championship.

Question from **Dan Graves**, Alumni Relations Assistant.

### Do you think there will be a female F1 champion within the next ten years?

Never say never. I would love to see it and it would be fantastic not only for F1, but motorsport in general. However, I'd say it's doubtful this would happen in the next ten years. Essentially there needs to be more opportunities for girls at a younger age to go racing.

Question from **Stephanie Lear**, Head of Individual Philanthropy.

### F1 can be a dangerous sport, so what makes it worth the risk?

It's all I've ever known. I grew up racing from the age of eight so while I, like most drivers I'm sure, am totally aware of the risk and the danger, it's also second nature. A driver's safety is at the front and centre of every decision the sport makes so safety has come such a long way in the time that I've been racing, which is how it should be. Is it still dangerous? Of course. Did I feel it was worth the risk? Absolutely. It's been my life.

Question from **Jamie Gray** (BSc Social Sciences 2008).

“Is F1 still dangerous?  
Of course. Did I feel  
it was worth the  
risk? Absolutely”

### You have been competing in triathlons for a number of years now. What attracted you to the sport, in particular, the Ironman?

I started competing in triathlons about nine years ago. I've always loved cycling so it just felt like a natural progression and a fantastic way of training for F1. With F1 there can be a lot of factors out of your control which can determine your fate over a race weekend – what I love

about triathlon is essentially the harder I train the better I do. I've had great fun organising and hosting my own triathlon (Jenson Button Trust Triathlon) for the last five years as well as raising money for various charities. I get all my friends and family to compete with me and we have a big barbeque and a band and it keeps everyone fit!

Question from **Stuart Mackenzie** (BSc Economics 2008).

### You reached the pinnacle of success as an F1 driver: what are your ambitions in triathlon and what is the discipline you find most difficult?

Swimming is definitely my weakest of the three but it's improving as I've been able to spend a lot more time this year focusing on my training while being based in LA. This year I've qualified for the World Championships in September so I'll be aiming to win that in my age group.

Question from **Christine Gibbons** (BPharm Pharmacy 1978).

### Where do you find the best satisfaction: beating a running time from your own power, beating a cycling time with pedal power or beating a lap time with horse power?

I take great satisfaction in all of them, but however much I love triathlon I'm not sure it will ever beat the feeling of winning an F1 race.

Question from **Tom Vellacott** (BSc Business Administration 2005).

### This year, the University awarded honorary degrees to:

World-leading economist **Professor Daron Acemoglu**; alumnus and former CEO of the Stroke Association **Jon Barrick**; Pentathlon GB Performance Director **Jan Bartu**; architect and winner of the 2008 RIBA Stirling Prize **Keith Bradley**; Professor of Cellular Immunology **Professor Doreen Cantrell CBE FRS FRSE FMedSci**; Chief Executive of the Chartered Institute of Personnel and Development

**Peter Cheese**; alumnus and a leading structural engineer **Dr Mike Cook**; Professor of Experimental Physics **Professor Dame Athene Donald**; alumnus and COO of Lotus Group **Aslam Farikullah**; Director for Health and Wellbeing at Public Health England **Professor Kevin Fenton**; sprinter and Olympic gold medalist **Jason Gardener MBE**; entrepreneur **Luke Johnson**; swimmer and winner of seven Paralympic

gold medals **Sascha Kindred CBE**; Chief Executive of the Energy Institute **Louise Kingham OBE**; first female bishop in the Church of England **The Rt Revd Libby Lane**; computer scientist **Simon Peyton-Jones**; diplomat and former Governor of Gibraltar **Sir Francis Richards KCMG CVO DL**; statistician and Anglican priest **Professor Bernard Silverman**; alumnus, architect and specialist in

environmental design **Professor Koen Steemers**; expert in carbon technology **Professor Steve Tennison**; software Engineer **Dr Martyn Thomas CBE**; former Universities Minister **The Rt Hon. The Lord Willetts**; alumna, skeleton racer and Olympic gold medallist **Amy Williams MBE**; Managing Director of Seiche **Roy Wyatt**.

## BATH'S BEST NIGHT OUT

Greg Chapman (BSc Psychology 2019)



Wednesday night has long been a highlight of the University week. Over the years, 'sports night' at the Students' Union has gone through a series of names: the questionable SAD (Sports Association Disco), the pun-infused Game On, or the downright decadent Score. While names might change, thankfully the heart of Wednesday night has not.



You'd be forgiven for assuming that sports night was exclusively for our sporting elite: an occasion to celebrate your victory or drown your sorrows after the exertions of a Wednesday afternoon. Fortunately this isn't the case. To me, running around a muddy field sounds a lot more like a punishment than fun, and to do this voluntarily is surely insanity? Yet while I hate exercise, I still love Score. And it's a great leveller seeing even the sportiest Score-goers swap their early morning pilates and kale smoothies for throbbing hangovers and McDonald's binges.

Why is Score so special? I'm no longer living on campus, so why should I bother trekking up Bathwick Hill of a Wednesday night? It's because almost everyone I know is in the same place. Once I walk up the SU steps, I'm surrounded by friendly faces. Whether you're a fresher or final year, sporty, artsy or somewhere in between, when you're in Score you belong.

Score symbolises everything there is to love about student life. The liberty to dance until the small hours, the good times spent with good friends and the possibility of even \*GASP\* kissing someone. Scandalous! It's all about simple pleasures. Sticky floors, loud music and 500 VKs. This is the real student experience – the one you don't

see in the prospectus. Who cares whether you'll get a 2:1 when you're belting out Mr Brightside alongside a sweaty rugby fresher?

While the night ends there, the magic doesn't. Aside from an artery-obstructing portion of cheesy chips at 2am, the best part of any Score is the Thursday morning debrief. Who pulled? Who vommed? Who still isn't home? All congregated in one bedroom of our student house, sprawled in a bed or slumped against the wall, the atmosphere is thick with regret. But it's worth it.

Like many things in life, it's difficult to fully appreciate something as it's happening. Once I graduate, I expect Wednesday evening will be an early night ready for work the next day. Setting off three fire extinguishers, filming myself

dancing to *Dancing Queen* by ABBA and ordering Domino's probably won't be on the menu.

Score is something that we students take for granted, without a whiff of the responsibility that lurks after we leave. So while the late nights, the partying and the gossip is the thrill of Score, looking back I think that what I'll miss and cherish most is the friendship and the freedom.

What was your best night out? Tell us at [alumni@bath.ac.uk](mailto:alumni@bath.ac.uk)



Budding drivers met Bath's Formula Student racing team and tried out their new wheels.



Absolutely superb weekend. Thanks to everyone who made it such a great event – **David Guy**



Alumni brought their families along for a taster of Saturday night in the Students' Union.

Uber fun day catching up with old friends. And I did the bobsleigh! And we won the quiz! **@tiffanyevans**



Brilliant to be part of the @UniofBathAlumni netball alumni match this afternoon with Karen Affleck & Jenny Boyd **@dawnbonfield**



# HAPPY BATH-DAY!

We rounded off a fantastic 50th year with the University's first community festival and our biggest-ever alumni reunion on Saturday 6 May.



## SNAP BACK IN TIME

A 1977 edition of student newspaper *Spike* was notable for its "sexy page 3 pull-out". The model who bared (almost) all was former SU Vice President Ian Young (right), who gallantly posed with the paper alongside cover star Stuart Appleton (left), former SU President. "I brought it along with the intention of showing a few people," laughed Ian, "but I didn't think it would be published again!"



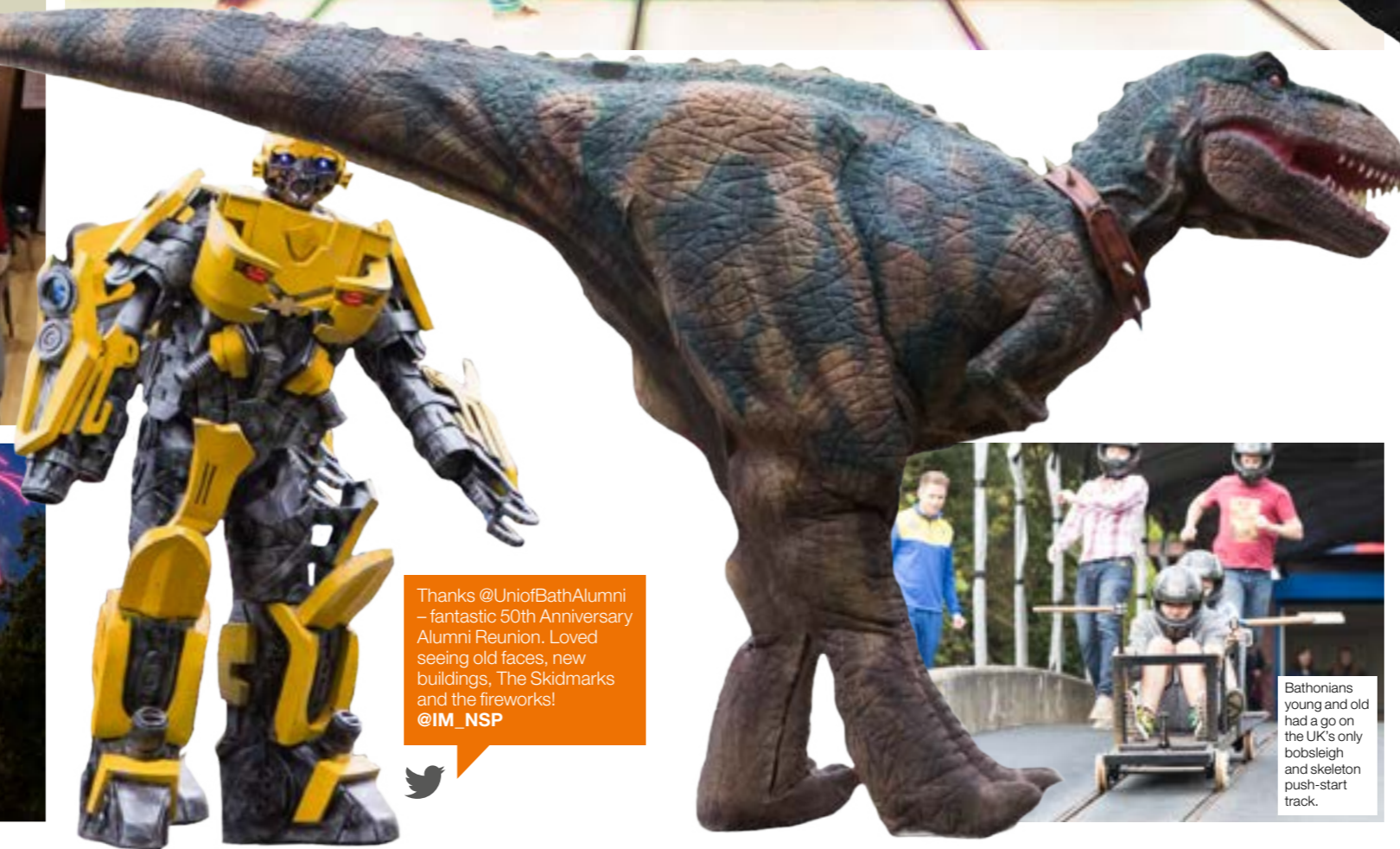
Over 800 alumni and friends reminisced over drinks.



All eyes looked to the skies as the Red Devils freefallen onto the athletics field.



The day ended with a spectacular fireworks display over the lake, designed by alumnus and staff member Dr Ben Metcalfe.



Thanks @UniofBathAlumni – fantastic 50th Anniversary Alumni Reunion. Loved seeing old faces, new buildings, The Skidmarks and the fireworks! **@IM\_NSP**



The crowd went wild as alumni sports teams played netball and hockey matches against current students.



Bathonians young and old had a go on the UK's only bobsleigh and skeleton push-start track.



Alumnus Richard Canning (class of 1991) rocked the SU again with his band, The Skidmarks.



# LIFE AFTER UNIVERSITY A BIT OF A CHALLENGE?

## **Our alumni have the answers.**

Join Bath Connection to get advice from fellow Bath grads on CVs, networking and taking the next step in your career.

And, if you have advice to offer, you can sign up as one of our Alumni Experts too.

Visit [www.bath.ac.uk/alumni](http://www.bath.ac.uk/alumni) and select 'Join Bath Connection'.

“ I am finding Bath Connection so useful and have already received lots of advice from people top in their field. ”

Abena  
Pharmacy student



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