Subtext

Autumn 2006

All together now: The University orchestra

Science and the soundbite: Harry Witchel on the telly

PM's question time: Tony Blair interviewed

Tales from the field: Exposed to the elephants (and monkeys, and snakes ...)



Subtext



The nature of this University is one such question. You can define the place by its history, functions, achievements and ambitions. But in the end, of course, it's people that make it what it is. Subtext (welcome to the first issue) is mainly about them.

The plan is to produce one issue per term highlighting some of the extraordinary individuals who work, study and visit here. We aim to make the magazine a good read for colleagues across the University and for anyone outside it with an interest in what makes the place tick.

This is new territory. I don't know of anything quite like *Subtext* elsewhere. If you have any thoughts on particular stories or the publication as a whole, I would love to hear them.

Barry Taylor

barry.taylor@bristol.ac.uk



Subtext Autumn 2006

Subtext is produced termly Subtext is available online at by the Public Relations Office, which is a department of Communications and Marketing Services.

Communications and

Assistant Director/ Head of the Public Relations Office Jill Cartwright

Subtext editors Hilary Brown, Nick Riddle

Marketing Director

Barry Taylor

Design and production www.pelotondesign.co.uk

Print and reproduction APB Colour Print. Printed on 50% recycled, elemental chlorine-free material from sustainable forests.

the University see bristol.ac.uk/news

re:search magazine and visit bristol.ac.uk/researchreview Public Relations Office. Senate House, Tyndall Avenue

Bristol BS8 1TH Tel: +44 (0)117 928 8895 Email: news-team@bristol.ac.uk

Subtext No 1, October 2006 © University of Bristol 2006 Extracts may only be reproduced with the permission of the Public Relations Office.

bristol.ac.uk/university/subtext For the latest news about

> For an insight into research conducted at the University, see

Contents

How I got here

Rogelio Vallejo describes his journey from Paraguay to Bristol (via Argentina, Paris, London, Manchester and Wales).

Bristol in pieces

Emily Wolfenden answers 20 questions; we look at a boulder; and a new biography gets a plug.

Feature: All together now

How many disciplines can you fit into a symphony orchestra? Quite a lot, actually.

Feature: Hope for the slopes 10

A Bristol pro vice-chancellor is helping some of the world's poorest communities protect themselves against a devastating natural hazard.

Other people's jobs

Helen Phillips on the challenges of working at the Language Centre including the time the Chinese Ambassador paid a visit.

Student profile

A stranger to rowing before coming to Bristol, Matthew Steeds is now on course for the 2008 Olympics.

Feature: Science and the soundbite

How do you get the *Big Brother* audience to look at a graph? Harry Witchel tried it.



Tales from the field

17

18

19

6 It shouldn't happen to an elephant researcher: leeches and poachers and parasites, oh my.

Why I became ...

... a civil engineer Professor Colin Taylor describes an early awakening at the Forth Road Bridge

From the archives

12

13

14

A major draw: Brunel's instruments, from the Special Collections of the Arts and Social Sciences Library.

Next issue due out February 2007









ROGELIO VALLEJO

Rogelio Vallejo, Senior Language Tutor in the Department of Hispanic, Portuguese and Latin American Studies and Higher Education Academy Teaching Fellow, was born in Paraguay. Before coming to the UK, he studied in Paraguay and Argentina and lived in Brazil, Italy and France. As well as teaching Spanish and Portuguese, he has worked as an interior designer in Manchester and a sub-postmaster in rural Wales. He shares his thoughts with Hannah Johnson on this incredible journey.

I was born and brought up in Asuncion, the capital of Paraguay. I studied at university in Argentina for a year or so, but then decided not to continue. I was a very rebellious young person and not at all a good student! I think perhaps this has helped to make me a good teacher. Obviously, I like students who work hard, are keen and present their work on time, but I also think there are lots of people – like myself – who need help to find a way of working, in order to end up with something they want to study, something they can be good at.

I left my country many times. I lived in Argentina; I lived in Brazil. Eventually, I decided it was time to come to Europe, because culturally it was more amenable. Of course, at the time (the '60s), my prejudice was such that it was Paris I wanted to see – certainly not Britain! It might seem strange for a Latin American to want to go to France when the logical move would be to go to the mother country – Spain. But when I was a young man, Spain was definitely a place that you wouldn't want to go. It was under Franco, a repressive society, very closed, and we thought if you wanted to experience culture you should go to Paris, Rome or Berlin.

The first time I came to Britain was simply as a holiday. I came to see London and I loved it immediately. People were extremely helpful. For instance, when I came we still had shillings and pence – very confusing for someone coming from decimal! In shops or in taxis, I would just hold a handful of money out and ask them to take the right amount. Then I would go back to my hotel and check how much they had taken – and I was never, never cheated.

I came to Britain again as part of an international exchange for language teachers. My first offer was a place as an assistant teacher of Spanish in Manchester. I was told: "Don't go to Manchester, it's awful. It rains and people speak funny" – all that nonsense, the southern prejudice about the North. But I thought I liked the sound of it. So I went to Manchester, and I loved it: all that industrial history, those buildings, and, of course, the people. Later, I lived in North Wales where I was a sub-postmaster for a couple of years. I like the Welsh very much. They are a storytelling nation, they love anecdotes. When the English meet, they don't necessarily tell you about themselves, whereas for the Welsh, like Latin Americans, everything is an anecdote. And, although things are changing, Wales has something of the underdog about it. I like that. I never go for the winner, I bet on the losers: people who struggle. That perhaps has to do with being Paraguayan. Paraguay always has problems and struggles.

I came to Bristol as a mature student at the end of the '70s. I did part-time work as well, teaching evening classes. I think that helped when the department offered me the chance to work here: it wasn't just because I was a student, but because I did work outside in the city and I think there was feedback that I was a good teacher.

To learn a language is a huge process. It's not about learning formally for communication, it's learning a culture. For example, in Spanish we don't say 'Please' and 'I'm sorry' as frequently as we do in Britain, but that doesn't mean that a Spaniard is rude – not at all! It's simply a difference, and you've got to learn to cope with it, even though sometimes that process can be painful.

I have a British passport but I am still a South American. I don't have a Paraguayan passport (Paraguay doesn't allow dual nationality), but to me that is just a formality – a pure legality. What you are doesn't change: when you become a doctor, and you're given a certificate, yes it's wonderful, but does it really change you as a person?

I can't consider Paraguay home. Paraguay is not the same place, the same thing that I left. I would never go back because for me, when you decide something has to be closed, it's closed. I left Paraguay because I'd always felt that there was in me a kind of displacement. The general social situation and cultural conditions weren't what I was looking for. So now I consider myself a cultural-social refugee, rather than a purely political one. And I like the idea of myself as a foreigner. I like not being part of the tribe.

I feel particularly lucky. I know I'm very privileged. I was given opportunities, but I did go looking for them, too, so it was not just luck. But there are lots of people who look for opportunities and can't find them – the doors won't open. Many times I had to kick the door, but I was lucky it was there for me to kick!«









WENTY QUESTIONS

Emily Wolfenden is a horticultural technician with Gardens and Grounds Services. She is currently based in Goldney Hall Gardens.

What is your favourite meal? Breakfast – fruit and yoghurt granola in Kate's Kitchen, San Francisco.

Cat or dog? Cats - they know their own mind.

Which historical figure would you invite to dinner? Dorothy Parker.

What do you sing in the shower? I don't, I wouldn't want to inflict my voice on anyone.

What is your favourite smell? Rain on hot earth.

What is your greatest character flaw? Feeding my houseplants with gardening is the new rock 'n' roll. stinky comfrey.

What keeps you awake at night? Nothing (must be all that hard physical labour).

Native Americans believe we all have a Spirit Animal. What would yours be? Pantalaimon from His Dark Materials by Philip Pullman.

Where is your favourite place? My allotment in 20 years' time when my apple tree will be providing me with fruit all summer.

Where is your least favourite place? Behind a hoover.

One book, one piece of music, one film. If I Don't Know by Wendy Cope, Fly Me To The Moon by Sarah Vaughan, and I'd swap the movie for another book - Why Don't You Stop Talking?by Jackie Kay.

Who would you banish to a desert island? Jeremy Paxman, so my partner could never watch University Challenge ever again.

You can make one new law. What would it be? That nuclear power never gets revived.

What is the University of Bristol for? Creating an audience for polo matches (only joking).

What has been your biggest life-changing experience so far? Working out how to do the timer on the video.

Is there anything you wish you'd known when you were 18? That

When and where were you happiest? That's X-rated, I'm afraid.

Where will you be ten years from now? Lord of the manor.

How would you sum yourself up in one line? A wiggly one.

Is there a question you'd like to be asked? 'Monty Don is on his way over, he's very keen to meet you, is that okay?'



(Tempus Publishing).

THE PLUG

William Kent: Architect, Designer, Opportunist

by Timothy Mowl (Jonathan Cape)

A lively critical biography of a very English character, a 'dyslexic Bridlington boy with an easy charm and a certain talent for guick, lively sketches', who took 18th-century British architecture in undesirable directions before redeeming himself by turning to garden design and producing masterpieces at Claremont, Esher and Rousham. Dr Mowl, from the Department of Archaeology and Anthropology, is also writing a county-by-county series of books on English historic gardens; already published are volumes on Wiltshire, Worcestershire, Cornwall, Dorset and Gloucestershire

THINGS YOU NEVER NOTICED **1. GREAT WESTERN RAILWAY STONE**

ature

In the garden below the Queen's Building, facing on to Woodland Road, stands this five-foot nodule of sandstone. It is one of two found in 1837 during the excavation of the Great Western Railway tunnel near St Anne's, Bristol.

The stone was presented to the University by British Rail in 1983 at a ceremony attended by Emeritus Professor of Engineering, Sir Alfred Pugsley. He had become concerned about the fate of the stones, which had been left on the disused platform of St Anne's Park Station when it closed in 1970.



If you think the University Symphony Orchestra only contains Music students, think again. Nick Riddle meets the players and conductor of an ensemble that crosses more disciplines than most.

TOGETHER

ot that you could tell from looking at them, but the 80 smartly dressed people who filed on to the main stage in the Victoria Rooms on an evening in June included mathematicians, classicists, geographers, chemists, vets, engineers and representatives from dozens of other disciplines. But once the members of the University Symphony Orchestra launched into Carl Nielsen's powerful *Symphony No 4*, you didn't think about that. Unless it was to wonder how such a disparate group, all with busy work schedules and career plans, could form such a tight, disciplined unit.

In the June Gala Concert (in front of an audience including pro vice-chancellors, professors emeritus, University staff and members of the public), the players showed no sign of exhaustion from the final weeks of the academic year. They performed Nielsen's most famous work - a titanic musical struggle between hope and despair subtitled The Inextinguishable - with the energy and commitment of a professional orchestra.

A few days earlier, with the mingled hope and despair of exams still lingering in the air, the orchestra had assembled for a penultimate run-through of Nielsen's epic. The musicians strolled into the Vic Rooms, chatted about their summer plans, and tended their instruments with the casualbut-careful attitude of musicians the world over. But once the rehearsal began, it was strictly business. The orchestra's

'People know when they sign up that they're making a big commitment,' says Dr John Pickard, Senior Lecturer in Music and conductor of the University Symphony Orchestra. The orchestra's make-up for an average year sees 25 to 30 different departments represented (including the Music Department, of course, although many Music students represented.







are busy performing in one or more of the half-dozen other choirs and orchestras). 'The standard is generally Grade 8, and we've had some star players in recent years, including two leaders of the National Youth Orchestra of Great Britain.'

Players of that calibre are essential when your programme steers clear of 'lollipops'. In recent years, the orchestra has performed major symphonic works by Dmitri Shostakovich, George Lloyd, Jean Sibelius and Hector Berlioz, plus newer works submitted by Composition students (this year's winning entry, Stress by Laura Callaghan, opened the second half of the Gala Concert). Dr Pickard chooses the repertoire to create a balanced programme with established classics (such as this year's *Pictures at an Exhibition*. Mussorgsky's piano suite orchestrated by Ravel) alongside less familiar works (like Sibelius' rarely performed Music for the Press Celebration Days, which received its UK premiere at the University).

'The repertoire can be quite challenging,' says Dr Ian Rutt, a research associate in the School of Geographical Sciences, and one of two tuba players in the orchestra. 'The Nielsen is very complex. It's been fascinating to rehearse, especially with John, who knows so much about Nielsen. It's very tightly constructed, but there's a lot of freedom and life. It's a good piece for a tuba player.'

Dr Rutt is one of the few members of staff who play in the orchestra – which is a shame, says Dr Pickard: 'There are some very accomplished musicians on the Bristol payroll.

But the students are no slouches either. Though there's an often-reported decline in the number of young people in the UK learning an instrument, the October auditions are as well attended as ever. 'One thing we have noticed,' Dr Pickard observes, 'is a decline in the number of students playing the "endangered species" instruments like the French horn, oboe, bassoon or viola.'

When it comes to rehearsals, the key is to keep things moving. Several members of the orchestra describe the 'no-messing-about' approach to rehearsing, and Dr Pickard confirms this. 'Unless they're Music students, this is all extracurricular for them,' he points out. 'They're often pretty worn out after a day's work, and these are bright people with a low boredom threshold.'

But that high degree of intelligence, he goes on, is a key issue for someone trying to conduct them. 'You think something you said hasn't sunk in,' he says, 'then a couple of weeks later, you can hear that it has.'

With performance becoming one of the key features of the university landscape – whether through research assessment or teaching quality exercises - the University Symphony Orchestra, and the other ensembles at Bristol, carry the torch for performance of a different kind. Their value is harder to quantify, but the benefits they bring to the University are enormous.

On an individual level, Ian Rutt speaks for his colleagues when he says that performing complements his academic work perfectly. 'To be able to play in the University Symphony Orchestra, which maintains a pretty high standard, is wonderful because of the depth of musical experience,' he says.

Then there's the institutional level, where Dr Pickard sees the orchestra occupying a crucial place. 'It's more than just a recreational thing or a shop-window for the University, he says. 'The existence and success of the orchestras are a barometer of the University's cultural health. And we see ourselves as having a responsibility; the orchestras are for the whole University.' ĸ

The University Symphony Orchestra's next concert, featuring Bohuslav Martin's Symphony No 3 and Dmitri Shostakovich's Symphony No 5, takes place on 2 December at the Victoria Rooms.







Stephen Payne, violin (and leader 2005/06) MSc student, Mathematics

which maintains a pretty high standard, is wonderful.'

Left: Dr John Pickard, conductor of the University Symphony Orchestra

'To play in the University Symphony Orchestra,

OTHER MUSIC AT BRISTOL

The University Symphony Orchestra is only the tip of the musical iceberg at Bristol. Here are a few more examples.

Bristol University Music Society

The Orchestra has a symbiotic relationship with the Bristol University Music Society (BUMS): newcomers audition jointly for the Symphony Orchestra and the Chamber Orchestra (one of five ensembles run by BUMS - see below) at the start of the academic year. The annual Gala Concert is a co-production between the two bodies. BUMS runs five ensembles: the Chamber Choir, the Chamber Orchestra and the Big Band (all auditioned); and the Wind and String Orchestras (not auditioned).

University Choral Society

A large choir, open to all members and friends of the University. No auditions. Recent repertoire: Edward Elgar, The Spirit of England; William Mathias, This Worlde's Joie.

University Singers

An auditioned ensemble of around 30 members, performing a wide range of choral music, mainly unaccompanied. Recent repertoire: Claude Debussy, Trois Chansons; Herbert Howells, Requiem.

New Music Ensemble

Performs new works, modern classics and student commissions. Recent repertoire: Luciano Berio, Folk Songs; Jean Hasse, Tuning (for 'piano tuner' and small ensemble)

For more information on musical performance at Bristol. please go to www.bristol.ac.uk/music/unimusicmaking.



Rob Sturman, tuba Research associate, Department of Mathematics

Favourite performances with the orchestra



Jody Weaving, clarinet MSc student, Business Management

Favourite performances

For three quarters of his time, Malcolm Anderson is one HOPF of the University's pro vice-chancellors and chair of its Research Committee. For the other quarter, he helps reduce the risk of catastrophe in certain vulnerable communities. Barry Taylor asked him about both sides of his life. FORTHE SLOPFS







'There are 50 wooden houses on 50-degree slopes. They'd had no water for three weeks. One house had burned to the ground in a recent accident. Someone's daughter had just died of diabetes. An elderly man was bedridden in a 12 foot by 12 foot shack that had been flooded by the rains.'

Professor Malcolm Anderson paints a bleak picture of life in a community in Castries, St Lucia, the Caribbean island from which he has recently returned after the latest of many visits. It is a desperately poor settlement in which, for the past three years, he has been working with residents to guard against one of the most terrifying hazards they face: landslides. Progress is encouraging, thanks to a blend of leadingedge science, community engagement and political know-how.

The science is hydrology - 'the movement of water through soils'. Professor Anderson, who has 160 papers and books to his name, has been researching the subject since he was a PhD student at Cambridge in the early '70s. It involves a combination of mathematics, computing and geography that he has applied to engineering challenges in many parts of the world.

But it is in the Caribbean, where some of the poorest people live in unplanned housing on impossibly steep land, that Professor Anderson has brought hydrology, local people's commitment and politicians'

'It's been a salutary experience and one that has

authority together. And if the multi-million dollar grant application he is making to the World Bank succeeds, his uniquely holistic approach could be rolled out to many more at-risk communities in the Caribbean and beyond. 'It's better to spend a changed me.' relatively small amount of money making these slopes safer now than to spend a vast amount clearing

up after a disaster,' he argues. He has found it humbling and inspiring to see those who face so many immediate problems in their day-to-day lives getting involved in the planning, delivery and maintenance of systems to control surface water over the long term. 'It's been a salutary experience,' he says, 'and one that has changed me.'

Communication and training have been vital in building the community's self-belief and capacity. While Professor Anderson is back in Bristol developing the science and wearing his pro vice-chancellor hat, the people of communities around Castries, supported by government ministries, are putting in the drainage channels, water pipes and guttering that his computer models have shown to be required. The next steps could include producing radio stories that promote collaboration and preventive action.

The project is about partnership - something to which Professor

Anderson often refers. At school in Leicestershire he was one of a tightpartly a function of the University's relatively modest size - something it knit group of academic high achievers who also wrote and marketed a shares with Princeton, which he sees as a role model. 'It's quite small, but magazine and put on reviews at the Edinburgh Festival. They still meet very, very good,' he argues, making it clear that no university can get far from time to time. Their energy was matched by that of some of the on collegiality alone. staff - especially a fantastic Geography teacher who asked questions that Professor Anderson thinks Bristol needs to be still more academically were stretching but that connected with the knowledge you had. The ambitious. 'We don't have to do everything,' he says, 'but everything we downside of all this precociousness was that the young Anderson and his do should be excellent. We have huge strengths here, but we should be friends had to take their A-levels early. He had the reverse of a year out. moving to the next level and driving more of the research agenda.' 'It was,' he says, 'a very unfortunate thing. It forced a pace and a direction For him, it's about vision and confidence - they pull the institution when they really weren't necessary. Life seemed to compress at a time together and make it attractive to exceptionally talented people. 'Given the physical constraints on the University's growth, either when it ought to have expanded. we're appointing people who are better than we are - than I am, But the experience of working in close co-operation with others at least - or we're going backwards.'

clearly stayed with him. Throughout his career he has gained deep satisfaction from building teams and watching them fly. He pays tribute He believes change is inevitable and to be welcomed. 'Nothing's to the 40 PhD students he has supervised - each of whom he sees as a forever,' he says. 'But it's not a question of the institution imposing research partner. And in and around Castries it is collaboration between change on its staff; the best people are themselves drivers of change ministries, governments, non-governmental organisations, academics and in the institution.' Just as in St Lucia, people power counts. the community that is yielding results. Strong relationships, high-quality Professor Anderson is grateful to Bristol. For 23 years, it has encouraged and supported him in his research. The University can

work and a clear vision: such is his formula for success. It is a formula he believes can work for universities too. When asked share the satisfaction of knowing that as a result, some of the world's what is best about Bristol, he highlights its collegial nature. He says this is poor communities are a little less vulnerable.

NEVER A DULL MOMENT

What's it like to work in the Language Centre? Hilary Brown asks Helen Phillips, Deputy Director – Applied Foreign Languages.

elen Phillips has a very tidy desk. 'I have only one piece of work on my desk at a time,' she says, which is at odds with the hundred and one things that seem to be going on in the Language Centre.

Even in the middle of August with the undergraduates away, the Language Centre is buzzing. Overseas pre-sessional postgraduates are coming and going, there's laughter from the classrooms and the noticeboards are full of activity sheets. 'We're busy 51 weeks of the year, daytimes and in the evenings,' says Phillips. 'Things only stop when we close for Christmas.

A self-confessed aficionado of John Cleese time-management videos, she's unapologetic about her pristine workspace. 'We have 800 students a year coming through on applied foreign language courses alone. I'd never get anything done if I wasn't this organised.'

Phillips' main area is Applied Foreign Languages (AFL) – language tuition for undergraduates whose main degree is in another area. Their degree may include a year of study in continental Europe or they may be studying a language as an open unit. It's only one of the centre's six main activities, which include English as a Foreign Language (EFL) and Lifelong Learning.

In any one day, you might hear Japanese, Welsh, Polish, Chinese, Arabic or Czech being spoken, as well as the more familiar European languages. 'It's a vibrant place to work because of the range of people and cultures,' enthuses Phillips. (You get the impression that you don't have to be energetic to work here, but it helps.)

As Deputy Director of AFL, Phillips manages eight co-ordinators, over 50 part-time language tutors and all student processes from registration to assessment;

'Working in the Language Centre keeps you on your toes. We all work hard but no one is precious about I will.'



develops the curriculum (including e-learning); organises the timetables; and represents the centre on inter-faculty committees. 'We are a department within the Faculty of Arts, but have links with departments throughout the University. One of the things she tries to impress on both students and departments is what they do. If that learning a language opens doors. I have to polish 'It widens your horizons and increases the doorknobs, your employability.

Phillips has been involved in language teaching ever since she graduated in French, German and Politics. She taught EFL in Quebec and France before undertaking a PGCE and postgraduate studies and working in commercial language teaching. One of her first jobs was to design and implement a programme in French for Eurostar drivers. 'Their French has to be very good, and the pronunciation perfect. There are stringent safety procedures and if they can't be understood by the French signalmen, the trains won't be allowed to move on. One of my drivers once momentarily forgot the French for "suspect package" when an unaccompanied bag was discovered on his train. He almost called it "une bombe", which wouldn't have gone down too well.

She went on to direct the Institution-Wide Language Programme at what was then the University of North London, and came to Bristol four years ago. She loves every minute of her job here. 'Working in the Language Centre keeps you on your toes. We all work hard but no one is precious about what they do. If I have to polish the doorknobs, I will.

And doorknob polishing she did, when his Excellency, the Chinese Ambassador came to donate 500 books to the Language Centre on behalf of the Chinese Embassy. 'It was a bit like



decorating at home. You put up some new wallpaper, and a perfectly acceptable paint job on the skirtings suddenly looks shabby. Once we'd polished the door knobs, we decided we'd have to give the door a lick of paint too.' In the rush, it was lucky that someone noticed a mistake in the Chinese lettering on the welcome banner that would have been tantamount to calling the ambassador a mere honorary consul.

The event was a huge success and the donation a coup for the centre, which introduced Chinese language teaching two years ago. In fact, the Japan Foundation has recently matched the offer with 500 books of its own.

Anything else that's not in the job description? Well, there was a spot of salsa dancing and tiramisu making during the 'And I always get to change the lettering on the staff board when someone new

centre's most recent Cultural Week starts because I'm one of the taller members of staff !'

Student profile

ONE MAN IN A BOAT

How does a mediocre footballer become a top-class rower with Olympic potential in less than three years? Engineering student Matthew Steeds, rising star of the University of Bristol Boat Club, tells Hilary Brown how.

atthew Steeds is not your average student: for the past three years he's been getting up at 5am at least three times a week to train, and sacrificing holidays to take part in monthly trials around the country. Nor is he is your typical rower. He never rowed at school because it wasn't that kind of school. He'd never even picked up an oar before freshers' week. Yet he has already represented Great Britain at international level, and is steering a course to the Beijing Olympics in 2008. Not bad for someone who admits to embarrassingly dismal performances on the football pitch in his schooldavs.

Physically, he is what you'd expect. At six foot six, his build is one of the things that got him thinking that rowing might be the sport for him. Vanity might also have come into it – just a bit. Flicking through a magazine at the barber's when he was still in the sixth form, an article on the physical attributes linked with various sports caught his eye. 'Rowers have the best bodies,' it claimed. 'It got my attention,' admits Steeds.

There were other reasons for being attracted to the sport. For one thing, he likes a challenge. There was also, perhaps, a feeling of wanting to take control of his life. 'Once you've chosen your A-levels, you're on a fairly well-defined path. I did science, so applying to do Engineering was a natural progression. It wasn't that I had a burning desire to be an engineer. I was



ann

hoping it would lead to a good job - and, ideally, a Ferrari.' Rowing, on the other hand, was something new.

He joined the Boat Club in freshers' week and it was soon clear where his real ambition – and talent – lay. He graduated to the men's senior eight team in a year. He is now a member of the University's Advanced Sports Squad and a TASS (Talented Athlete Scholarship Scheme) scholarship holder and represented Great Britain last summer in the E.ON Hanse Canal Cup in Germany. He has had wins in the Ghent international regatta, the British Universities Sports Association



'He is at the elite level of **British rowing** and firmly on the pathway to selection for the World **Championships** next year, and the Olympics in 2008.'

Championships, the International University Sports Federation Championships and, most recently, the European University Sports Association Championships. His coach, Gordon Trevett, is in no doubt as to his potential. 'Matt's development has been phenomenal. Very few rowers get to the top in less than six years, and Matt has achieved this in two. He is at the elite level of British rowing and firmly on the pathway to selection for the World Championships next year, and the Olympics in 2008.'

Steeds is fairly laid-back about his success: 'It's fair to say that I'm better at rowing than I am at engineering, but I've got a long way to go.' He's keeping his options open as far as the future is concerned – he has just begun a fourth year at Bristol studying for an MEng - but his priorities have changed. 'I'd love to be able to make a living out of rowing. My parents might not have given up on the idea of my being an engineer, but I'm working on it.'

It looks like that Ferrari might just have to wait. ĸ

VITAL STATISTICS

Hours' training per week 28... Calories consumed a day 6,000 (3 x recommended daily allowance)... Personal best over 2 km 5 minutes, 59.8 seconds Blisters acquired during training Several hundred... Social events rejected because of training commitments Too numerous to mention

$\bigcup \Box$ SCIENC SOUT

What happens when a Bristol academic gets a call from the broadcast media? Harry Witchel, Senior Research Fellow in the Department of Physiology, gives the low-down on interviews, anxiety, and bringing science to 'that' house.

hen I used to watch people being interviewed on television, I never distinguished between a person speaking to an interviewer and someone speaking to speak cogently while staring straight into the lens of a camera; in Psychology departments, speaking directly at a video camera is used to induce anxiety. Now, whenever I see a disembodied person behind the newsreader, with their eyes looking out to the viewers, I feel their strain as they try to formulate a few sentences.

One of my first television interviews was for BBC News 24. There was no studio – just a small cubby of a room with a camera, a chair, and a coloured backdrop. There was no door, only a curtain, and I was wearing an earphone to hear what was going on in the main studio. I was so stressed out, I completely lost track of what I was doing, but I kept on answering questions. When I saw the tape, what I said made sense, but my tie was on crooked.

I found it much easier to talk to an interviewer with the camera off to the side. After the Northwick Park Hospital drug trial of TGN 1412, when the volunteers became grotesquely swollen, I was live on BBC Breakfast TV news to speak about drug safety. I wanted to convey that this tragedy was incredibly rare, and that drug trials are very carefully regulated and normally quite safe. Bill Turnbull, the interviewer, worked with me to make the expert opinion clear, so I was able to make my point in a matter of seconds. Everything about

the interview was calm, and I had a completely clear head. I ended up with plenty of time to quote facts and figures.

The subjective feeling of time is most apparent when you compare live with pre-recorded appearances. After David Cameron's first appearance as Conservative leader on Prime Minister's Questions, I was interviewed early in the day for a late afternoon transmission on PM with Eddie Mair on Radio 4. The question was how Cameron performed, in terms of non-verbal communication. We had so much time, we did the interview twice: the first time ended when the minidisc recorder fell to the floor and erased everything. The final interview was edited down to three minutes and covered everything I could have asked for.

All of this was good training for the day I got a call from the producers of *Big Brother*. They wanted to find out whether there was any scientific evidence for the existence of memes in the Big Brother house. (Memes are ideas or behaviours that are transmitted from one person to another like a virus. The classic meme is a rumour, but memes can include songs, hairstyles, and England flags on cars. Even language is a kind of meme.)

This work entailed doing a small research project during the course of a morning. My job on the first day was to come up with three minutes of pre-recorded commentary for the prime-time Big Brother show explaining why all the housemates kept saying, 'At the end of the day'. The Assistant Producer was ecstatic about the phrase, and how even Tony Blair was saying it now.

When I arrived at the set, I was a bit starstruck. There it was, the house and the catwalk where each housemate walks out on eviction night to the screaming cheers, and terrible booing, of the crowd. It looks more like a military bunker: tall flat grey walls, razor wire everywhere, and the occasional security man in a black tee-shirt.

From 8.30am, the day passed in a blur. I had to see the footage, come up with data, analyse the numbers, write what I was going to say, have everything approved and finish filming by 3pm. I made a lovely pink and blue graph in Excel, and I even showed that 'at the end of the day' passed from one housemate to another; I found a correlation that was statistically significant. There was no time for rehearsing and no autocue, as that would look unnatural. So they shot each take over and over, with me talking spontaneously to camera (only it doesn't *feel* spontaneous). My long suit is lecturing, and they had me sitting down, which made me less comfortable. Even then, they told me I moved around too much for television.

Two days later, I watched the final cut at home. I saw myself, prime-time on Channel 4, in front of five million viewers, and the producers chose a take where I was saying sentence after sentence without moving at all – I even forgot to blink. My graph and the data were all cut. From that moment on, my goal became to get a graph on to *Big Brother*. I waited a year before my opportunity materialised. This year, the format was changed to a 22-minute chat show

hosted by Dermot O'Leary: Big Brother's Big Brain presented scientific commentary to a young audience not typically Big on the scientific method. The show was filmed with a studio audience and was transmitted live. Once again I looked for memes.

The most consistent group activity in the house was effing and blinding. At its peak, the 12 housemates used the F-word 2,624 times in one day. I wanted to phrase it as 'the F-word', but the series producer insisted I say "f**** and f****ing" live on national television. It was OK, he said, because it was late at night. I didn't feel like it was OK: the studio audience sucked in their breath when I said the words. But I got my graphs – three of them.

It was a fair trade: I said things in a way that he could best use, and he helped me bring science to the people. That's what you have to aim for when the media want you as an expert – a trade-off between science and the soundbite. I may be the expert on the science, but with five million viewers, the Big Brother producers are the experts on what works for the audience.

Harry Witchel is running two courses for the University's Centre for Public Engagement this autumn. See www.bristol.ac.uk/cmc/cpe.









This page: Harry Witchel explains memes (and turns the air blue) on *Big Brother's Big Brain* ith Dermot O'Learv

'It looks nothing like a house, but more like a military bunker: tall flat grey walls, razor wire everywhere, and the occasional security man in a black tee-shirt.'





PM'S QUESTION TIME

A long-standing invitation to Tony Blair to give a lecture at the University bore fruit this summer. Barry Taylor sat down with him for a conversation.

of course,

that popular

institutions

many more

applications

than places

available,

although it

must be better

than having

the opposite

problem.'

BT: Are you relaxed about people studying the less vocational subjects. or would you be happier if the balance shifted more decisively in favour of science, engineering, law and so forth? Or will variable fees cause a shift in that direction anyway?

TB: Yes, I am relaxed about it. This was, I assure you, a subject of discussion even when I was a student back in the early '70s. And it's true that history or literature is not like the law or dentistry. But as well as a grounding in the subject itself, they also provide valuable skills such as analysis, presentation and problem-solving that are very much in demand by employers.

What I would be concerned about was if we didn't have enough students wanting to read subjects like science, engineering and maths, which are particularly vital for our country's future prosperity. That's why we announced in 2004 a ten-year strategy to boost the STEM (science, technology, engineering and maths) disciplines. The good news is that we're starting to see an increase in the popularity of these disciplines in the latest UCAS figures.





As to variable fees, they may make students think harder about the quality of individual courses and the opportunities to develop themselves, but I don't think they'll lead to a flight out of high-quality humanities provision. After all, Harvard and Princeton have no difficulty recruiting fair and can be seen to be fair. If that is to their humanities programmes.

BT: Bristol University is very active in the commercial exploitation of research and in promoting an entrepreneurial culture. Are we right to give this so much attention, or should such activities be 'It is a problem, more of a sideshow?

TB: Applied research is not a sideshow, but an increasingly important part of universities' research and its community like Bristol get engagement activities. Some of the most exciting young companies in this country have sprung from research, and that has knock-on benefits to our national economy, but also the local economy, when jobs and wealth are created.

> That is why we introduced dedicated funding – the Higher Education Innovation Fund (HEIF) – to help build up universities' capacity to do applied research. The third phase of HEIF, worth more than £200m over two years, began this year and every university in England will be getting a share of it.

BT: In some subjects, Bristol gets more applications per place than any other university. We recruit on ability, motivation and potential. We get criticised as socially elitist when we turn down state-school applicants, and as social engineers when we turn down independent-school applicants. The media for example, in this regard. has had a field day. Any advice on this specific issue, or on dealing with no-win situations and media firestorms in general? TB: I do know a little about media firestorms and a common feature of them can be criticism, at the same time, for having gone too far and not having gone far enough. In the end, you have to have confidence that you're doing the right thing for the right reasons and work hard to get your arguments over. But I'm not saying it's easy at the time. It is a problem, of course, that popular

institutions like Bristol get many more applications than places available, although it must be better than having the opposite problem. But it's a sign of the dedication

and professionalism of all those associated with the admissions process that the system runs so well.

The key to countering criticism of the sort you describe is making sure that admissions policies and procedures are the case, then in the long term they will command the confidence of students, parents and their advisers.

BT: Bristol is an ambitious university. Do you have any suggestions as to how it should maintain or enhance its competitive position? TB: You seem to be doing pretty well without my advice. And it's vitally important for this country that we have great institutions like Bristol competing on the world stage. It was to help ensure our universities could continue to compete in an increasingly global market - something that I know is fully recognised here in Bristol - that we faced up to the long-term decline in university funding by introducing variable fees and increasing the public funding for research and for teaching. We've also helped universities to modernise their governance arrangements and set up an independent regulatory review group for the higher education sector to eliminate needless bureaucracy.

I also think it's important that universities raise their game on fundraising - there's been a lot of good work in recent years but I'm sure much more can be done, and Government needs to help. There has been progress but we still lag badly behind US universities,

BT: Has being a parent of a university student affected your views on higher education?

TB: Well, Euan had a great time here in Bristol. Yes, it has allowed me to see how the way that kids look at universities is changing. I think we'll get to a situation in ten to 20 years' time, maybe even sooner, where youngsters will be looking at the universities almost as a global market particularly places like Bristol. I know you've been ranked seventh in the UK and 49th in the world league table, and you know you've got to keep that position.

IT SHOULDN'T **HAPPEN TO AN ELEPHANT** RESEARCHER

Poachers, bush fires and deadly snakes are all in a day's work for Kate Evans, a PhD student in the School of Biological Sciences. Interview by Hilary Brown.





female elephant

lephant researcher Kate Evans doesn't mind getting her hands dirty. 'I've given up counting the number of occasions when I've had to dig myself out of the mud in the African bush,' she says cheerfully.

It's not just trucks that have a habit of getting stuck. 'The mud pools that form after heavy rain are a hazard to animals, too. I've had to clamber over a trapped elephant trying to harness it to a crane in an effort to winch it out.' Such incidents don't always end happily - on that occasion, it was impossible to save the elephant. A nasty bout of bilharzia (a disease caused by parasitic worms) and the occasional encounter with a leech notwithstanding, Evans herself has managed to escape any lasting ill effects from messing about in mud baths.

Evans had always wanted to work in elephant conservation. After a Zoology degree came a Masters in Parasitology, which involved sifting through lion poo for a year and a half. 'I learned the hard way not to seal the sample bags by holding them at the top corners and twirling them round in the direction of my face. The problem was that the faeces were quite runny on account of the lions having just eaten.' She cut her conservation teeth on voluntary projects in Botswana, Namibia and Zimbabwe involving hippos, monkeys and elephants, but her

real break came when she was accepted at Bristol to carry out research into voung male elephant behaviour. The conservationist Randall Moore was setting up a project to release young captive bulls into the wild, and Kate's brief was to collect comparative data on how wild bulls of that age behave in their native environment.

By this time, the prospect of spending three years tracking elephants in the Okavango Delta wasn't particularly daunting. 'The voluntary work was a good training ground,' says Evans. 'Field researchers have to be prepared to slum it. If you find yourself alone in a camp and the electricity generator breaks down, you have to be able to start a fire, even when it's been raining and the wood is wet. I've also been in places without running water, and you can spend hours a day collecting your own.'

But there were still plenty of trying moments to come. 'I've had a two-metrelong black mamba snake slide past within a few inches of me and a rat give birth in the sleeve of my fleece.'

It's not just animals inside the tent that are a problem. 'Monkeys love using a tent roof for a trampoline, and once I had a genet (a big spotted cat) racing round the tent all night for about a week like it was a circuit track. Then there was the time I was camped under a fig tree and an

Top and above left: Elephant watching on the Okavango Delta in Botswana. Above right: Evans with the skull of a

'The voluntary work was a good training ground. Field researchers have to be prepared to slum it. You have to be able to start a fire, even when it's been raining and the wood is wet.

elephant nearly demolished the tent trying to reach the fruit. I haven't been chased by elephants very often, but when it does happen it's quite scary because they just plough straight through trees, which you can't do in a truck.'

Some of the more frightening moments have had nothing to do with animals. 'Bush fires are terrifying. The Okavango Delta is very flat and you can see them coming. Although you can burn back areas of bush around the camp to stop them, you can be in trouble if the wind suddenly changes direction.'There are other, unexpected, hazards. Evans once had to round up five abandoned horses laden with meat from a poachers' kill and guard them until the national park authorities came to collect them. 'I was alone in camp and was worried that the poachers would come back for them.'

With all these dangers to contend with, what is the attraction? 'Studying elephants is fascinating – their lives are similar to our own. A young bull I'd been tracking once sidled up to the truck, filled up his trunk with dust and showered me with it, then acted like nothing had happened - I'm sure he was being cheeky! These incidents don't prove anything scientific, but you can't ignore them.'

For more information on Kate Evans' research, see www.elephantresearch.co.uk.

... A CIVIL ENGINEER

It was the Forth Road Bridge that did it for Professor Colin Taylor of the Department of Civil Engineering. Interview by Hilary Brown.

I lived in Leeds as a child and every summer I used to go on holiday to my aunt's farm just outside Edinburgh. One year, when I was eight, we went on a site visit to the Forth Road Bridge while it was being built. The visit was organised by the Yorkshire Society in Edinburgh, one of the various social groups my aunt and uncle were involved with. I was in total awe of what was going on. There I was on the site of this massive construction project, there were cables being spun and bits of the road deck going up, and I remember thinking,

"Wow, this is fantastic, this is what I want to do!".

Of course, I didn't know then that it was engineering as such that attracted me. I had always had a fascination for things that were being built and as I got older, I thought it was architecture that I wanted to do. A family friend was an architect for the local council and he gave me some booklets of technical drawings for a housing project he was involved with. That stimulated my interest in construction – I've still got the booklets at home. When I went to secondary school, I became more interested in the maths and physics behind construction and realised the difference between architecture and engineering. I knew then that I wanted to be a civil engineer. I did veer off into geology at one point, because earthquakes and plate tectonics were another passion, but I ended up doing a civil engineering degree. In fact, I'm now involved with earthquake engineering, so I have the best of both worlds.

My eight-year-old's interest has become a lasting research interest in the dynamics of long-span bridges, including, most recently, the Second Severn Crossing. This has grown out of project I began when I first started as a lecturer at Bristol in 1983, measuring vibrations on the Humber Bridge, then the longest suspension bridge in the world.

One of the reasons I am involved with community engagement activities is that I feel strongly that, as educators, we need to engage with children in the seven- to 11-year age group – that's the time to capture their imagination and give them the stimulus, as it gave me, to go on and study appropriate subjects.

From the age of eight, I went back to the Forth Bridge every year till it was built – it took another three years. It was an exciting time. Ferries were still going across the river, and the old railway bridge, as fantastic a structure as the new road bridge, was adjacent to it. The irony is that the motorway that now takes you through Edinburgh to the Forth Road Bridge cuts right through my aunt's farm and the fields I used to play in as a child. The bridge may have inspired a childhood ambition, but I never dreamed it would be at the cost of some of my most cherished memories! **«**



Left: Professor Taylor in the Bristol Laboratory for Advanced Dynamics Engineering. Below: The Forth Road Bridge under construction in 1963



From the archives



TOOLS OF THE TRADE

These drawing instruments, which originally belonged to Isambard Kingdom Brunel, and which are inscribed with his initials, are part of the Brunel Collection. This is housed in the Special Collections of the Arts and Social Sciences Library and was given to the University of Bristol in 1950 by Lady Celia Noble, Brunel's grand-daughter. The Collection has been added to since through deposit, gift and purchase. Special Collections holds a wealth of information on Brunel, his father Sir Marc Isambard Brunel and his family. Gems include a large series of sketchbooks (preliminary thoughts on projects), diaries and letterbooks (copies of outgoing correspondence). Special Collections is open to staff, students and the public by appointment; tel +44 (0)117 928 8014 or email specialcollections@bristol.ac.uk. 1 Bristol student, Jake Meyer (Earth Sciences), on the summit of Mount Katahdin in Maine. He recently beat the world record for scaling each of the highest peaks in 48 US states. Jake and his support team of six Bristol students took 24 days to complete the challenge.

2 Cats, dogs and exotic pets are now being treated at new facilities at Langford, after the Department of Clinical Veterinary Science opened its new first-opinion Small Animal Practice in July.

3 Eight sheep from Langford went to graze on Durdham Down in July. As one of the commoners of The Downs, the University has to graze sheep there every ten years to ensure that the area remains as common land, according to an 1861 Act of Parliament.

4 David Nutt, Professor of Psychopharmacology and a key member of the Advisory Council on the Misuse of Drugs, has been involved in preparing an alternative system of drugs classification that more closely reflects the harm they cause. The new system is based on the first scientific assessment of 20 legal and illegal stimulants used in contemporary Britain and rates some illegal drugs as less harmful than alcohol and tobacco.

5 The winning entry in the Clifton Crossing Competition, by Youssef Ghali. The competition, organised by the University and New Civil Engineer magazine, was a re-run of the original design competition won by Isambard Kingdom Brunel in 1831.

6 A tribute to Sir Isambard Owen, the Vice-Chancellor responsible for the completion of the Wills Memorial Building, which was uncovered during the tower's restoration in August. The engraving, high up on the north-face exterior of the building, dates from around 1925.

7 Staff and students from the Department of Archaeology and Anthropology spent the summer examining an unidentified ship that sank in Road Harbour, British Virgin Islands over 200 years ago. Evidence suggests that the wreck is likely to be a vessel of 80-100 tons, built for trade, and originating in Bermuda or the circum-Caribbean region. Among the finds recorded were a Spanish coin dated 1755, more than 500 pieces of musket shot, a bronze seal and a stoneware jug.



If you need all or part of this publication in an alternative format, such as in Braille, in larger print or on tape, please telephone +44 (0)117 928 8895

