Subiexi

Autumn 2009

The road from Latvia A European odyssey

That thinking feeling A pair of philosophers get into an argument

Open wide Accountancy's loss is dental health's gain

The swimming detective Pulling wonders from the wreckage



RANTINA



One could be forgiven for feeling a tad uneasy. In this season of mists and mellow fruitfulness, we also find ourselves prey to lingering economic uncertainty and heightened sickness rates. Even if you're a magazine produced by a Public Relations Office, there's no point in pretending that all is well when it isn't.

Appropriately enough, this issue of *Subtext* features several people who tackle the dark, uneasy side of modern life: an anthropologist whose work is bound up with her own dramatic family history and that of her native Latvia (p4); a veteran trade unionist who steers a tricky course between University management and the employees he represents (p13); and a scientist who credits a childhood encounter with death as a spur for his research career (p6).

Neither *Subtext* nor the people we feature share the view of Voltaire's naïvely upbeat Dr Pangloss that 'All is for the best in the best of all possible worlds'. Something they *do* share is a drive to make this, the far-from-best of all possible worlds, at least slightly better. I hope you enjoy reading about them.

Nick Riddle

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Bristol in pieces

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Next issue due out February 2010

VIEDA SKULTANS

Vieda Skultans, Professor Emerita and Senior Research Fellow in the Department of Sociology, has recently returned to her roots in Latvia, the setting for several traumatic chapters in her family history. She talks to Nick Riddle about ancestors, her time as a refugee and her return to the land of her forebears.

I was born in Latvia but I grew up in two worlds. There was the everyday world around me in London, and there was the past in Latvia, which I often felt was the *real* world. The adults around me were all so sad, and I could do nothing to make it better. It seemed that what was going on around us was always compared with how things *should* have been.

I was told many stories about my ancestors. When Latvia was invaded in the First World War. my maternal grandparents fled to Siberia, where my grandfather managed a huge estate. Their first baby froze to death after the nanny had a tryst with her lover and forgot about him. In 1921 they decided to return to Latvia, which had won independence, and my grandfather rented a coach on the train and nailed animal furs inside it to keep their second son warm. But he caught dysentery and died on the train. My grandfather buried him beside the railway line. They arrived in Riga virtually penniless. But my grandfather started a market stall and quickly became wealthy, supplying the Latvian navy and other big organisations. They had a large house with domestic staff and my mother went to a French lycée in Riga.

How I got here

When the Soviets returned in 1940, the family fled to a farm that my grandfather had won in a game of cards. He spent his nights hiding out in the forest. One night in June 1941 some friends came over, and my grandmother persuaded him to stay the night just for once. It was the night the secret police came; they took him and his son Guntis, who was 14 at the time and had to watch his father being tortured. My grandfather bribed one of the guards with a gold pocket watch to release Guntis. He came to England with us and became a well-known novelist writing in Latvian. He killed himself when he was 38. I think everything that happened was just too difficult for him to come to terms with.

My mother was left in charge of the farm at the age of 19. She married a local farmer's son in 1942. Her years with him were the happiest of her life. He wrote her poetry and he had a beautiful voice. I was born in 1944, but I never got to know my father; he was killed in action later that year.

The Soviets were getting rid of anybody in Latvia with any sense of leadership: academics, lawyers, doctors, even village policemen. My mother realised that if our family stayed in Latvia we'd suffer the same fate. So we fled to the coast where little boats were taking people across. We thought we were going to Sweden, but we landed in Germany and arrived in Berlin during the Allied bombings.

The war ended in spring 1945, but we spent another three years in various German refugee camps. There were always other children around, so, by and large, I had a good time. I'm told I was quite a naughty little girl. Once, when I was about three, we were housed in a street just across from a huge field of peas – I still have a passion for them – and I went across the street to get some. I thought I'd looked right and left but obviously I hadn't, because I was knocked down by a British Army lorry. I wasn't seriously hurt, but I was streaming with blood. My mother carried me to the local medical point and the nurse took one look at us and said, 'Why have you brought this child here to die?'. But I didn't die.

My mother remarried in Germany. My stepfather was a lawyer and journalist, and he came to England to work as an interpreter in a refugee camp in County Durham. He brought us over in 1948. Later he worked in a biscuit factory, and he always seemed to smell of biscuit dough. Then he got a job with Voice of America, and later Radio Free Europe. He was based in various European cities, so we didn't see much of him.

My mother got a job as a domestic cleaner for a middle-class family.

We had a windowless room under the stairs. The children had a pedal car; once, when I thought nobody was looking, I got into it and started pedalling. All hell broke loose; the servant's child was not supposed to play with the owner's children's toys. We weren't there very long. We moved down to London, and eventually my parents managed to borrow enough money to buy a Victorian terrace house near Hampstead.

Neither I nor my mother spoke any English. I was the only non-English child in my school, so I couldn't communicate with anyone at first. I learnt English from *Listen with Mother* on the radio, which was meant for under-fives. A few years later, I was the only child from my class to pass the 11-plus.

My mother got a job doing piece-work at home, stringing artificial

pearls. Sometimes I'd wake at night and see her working; she'd put a blanket over the table so that the pearls didn't roll, and you had to have a special knot in between each pearl. Even now, when you're looking for something in her house, you sometimes find the odd pearl from those days.

I read philosophy at University College London, but I wanted

something more concrete. I was interested in how ideas were used and what they meant to people. So I went on to do anthropology, got a research assistantship at Swansea University in 1968 and began studying doctor-patient relationships. From there I did research on spiritualism and healing; that formed the basis for my PhD, which in turn became a book called *Intimacy and Ritual*. I came to Bristol in 1971 as a young social scientist in what was then the Department for Mental Health.

An anthropologist friend of mine once suggested that my interest in intimacy and ritual stemmed from my refugee background. At the time I didn't know what the hell he was talking about. Looking back, I can see perhaps he was right: in that situation of displacement and unpredictability, intimacy and the rituals of small groups become very important. I'm much more aware of that now, because of my work on life histories and cross-cultural psychiatry; the incidence of mental illness among exiled communities is very high.

My first return visit to Latvia was in 1990 to adopt my son, Janis, from a Latvian orphanage. My adopted daughter, Emma Mali, who was born in Thailand, wanted a baby brother. As soon as I arrived, I talked to doctors about the state of health in Latvia, especially psychological health. They were all talking about 'neurasthenia', which is an old American word for nervous exhaustion no longer used in the West. That intrigued me, so I applied to the Economic and Social Research Council for funding to do a few months' research there on patients' experience of neurasthenia. I advertised in the two main newspapers and got over 60 replies, and the project snowballed, because neurasthenia involves people's whole lives. It was emotionally very draining to hear so many life stories; there wasn't much to smile about in most of them.

Going back to Latvia was very unsettling. It was familiar but strange at the same time. It wasn't the Latvia that I had got to know through my family's stories. Riga wasn't the beautiful city of parks that it had been during Latvia's independence period – the Paris of the East, it was sometimes called. The poverty and the physical decrepitude of post-Soviet Riga when I visited was extraordinary: every door was peeling, almost every window had a hinge hanging off.

Eventually I wanted a place of my own in Latvia. I found a house that an architect had started to build, but his wife had left him and he'd lost interest in it. It was just a shell, a very beautiful shell, right by the sea. I bought it and gradually put floors and walls in. Now everybody says it's the nearest thing to paradise. It's also very close to my father's old farmstead. My partner and I spend half the year there and half in Bristol.

I feel more English when I'm in Latvia and more Latvian when I'm in England. My Latvian is fluent – I've got a trace of English accent. Local people refer to me as *Angliete*, 'the Englishwoman'.

When I'm here I miss the wildness and emptiness of Latvia. I miss the directness of the people, too. People are friendly here, but there isn't as much physical closeness. I always get it wrong when I come back – standing too close to people in the queue at the Post Office and so on. When I'm over there I miss the University library, my students, the newspapers ... I can't tell you what else I miss yet. Ask me again in a few years. ⊯



THE SWEET CELL OF SUCCESS

You probably saw the headlines. You may well have seen it on the news. For 48 hours, it was hard to avoid at least catching a mention of the 'stem cell breakthrough' story. But what was it like to be at the centre of the media whirlwind? Nick Riddle gets the inside account from Professor Anthony Hollander.

There's no reason why scientists accustomed to the long and involved process of research should look forward to a heavy spell of media attention. But equally, there's no reason why they shouldn't. If they're anything like Anthony Hollander, they might positively relish the idea.

'I love it,' says Hollander, ARC Professor of Rheumatology and Tissue Engineering and Head of the Department of Cellular and Molecular Medicine. 'Particularly the challenge of live interviews where you have to think on your feet. I don't get nervous – as a kid I did a lot of amateur dramatics and I got very used to speaking in public.'

The media, of course, like a bit of drama. Which might explain why, after doing an interview with the *Sunday Times* health correspondent about his work on osteoarthritis, Hollander opened the paper to find her article under the wildly premature headline 'Cure for osteoarthritis'. 'Her article was very good,' he hastens to add, 'but the headline writers do their own thing, and you don't have much control over that.'

The next thing he knew, BBC News were on the phone, 'and it almost got out of hand. I had to decide whether to work with the BBC. I felt that if I didn't, they might get it wrong. So I did, and they actually did quite a nice story. I was quite pleased to be able to cut my teeth on an experience like that.'

My brilliant trachea

He's right, of course: better to get the hang of things on a smaller scale. Hollander's next major encounter with the media was an altogether weightier affair: a breakthrough in tissue engineering using adult stem cells, leading to a life-saving transplant operation. He and his Bristol colleague, Professor Martin Birchall, were part of a pan-European team that achieved a world first: a young woman's diseased trachea was replaced by a length of cartilage grown from the patient's own stem cells in Birchall's lab, then matured into cartilage cells using a method originally devised by Hollander for treating osteoarthritis. The operation was performed in June 2008 in Barcelona by Professor Paolo Macchiarini; the media coverage, which began with a press conference in November, was global.

The team as a whole had agreed that, whoever was being interviewed, one message was crucial to convey: the stem cell breakthrough was the result of a joint effort. So, when Hollander was asked during a Radio 4 interview whether the achievement was 'great for UK science', he had to tread carefully. 'I said, ''Well, it's a big *European* collaboration; Bristol played a role, but it's also partly the result of investment in stem cell biology by the government...".You have to strike a balance: it's important to push the UK agenda and the Bristol agenda, but also to acknowledge the full team and the European context.'

That said, there's no denying the role of individual agendas. Hollander realised that the clinical side of the story – the operation itself and the enormous benefit to the patient, Claudia Castillo – was uppermost in the minds of the Barcelona team, and that the press would seize on the 'miracle cure' end of things. 'But I didn't want to lose the stem cell story,' he says, 'so I spent the evening before the news conference thinking about the message I wanted to get across in my part of the presentation. The phrase I came up was that this case showed us a way of moving from stem cell *science* to stem cell *medicine*. So I used that phrase, and it got picked up in several reports. It didn't compete with the clinical story – in fact, I think it complemented it.'

Meet the press

After the press conference came the deluge of media calls. While their Spanish colleagues returned to Barcelona to deal with the press there, Hollander and Birchall – with the help of the University's press office – fielded interview requests in Bristol and took turns doing them. He describes the first 48 hours as 'hectic – great fun, but a nightmare in terms of scheduling'.

Some interviews, he recalls, were a positive pleasure; others were less so. He quickly noticed that 'the quality of the questions you get write a story for the BBC's own online news magazine. Thinking that increases the higher up the media chain you go', and was clearly this was something in-house for BBC staff, Hollander agreed to be impressed with Evan Davies from Radio 4's Today programme. 'He interviewed. And he also received a much-prized gold Blue Peter badge. asked some wonderful questions,' says Hollander, 'but towards the end of 'What I hadn't realised was that my letter had already appeared in a the interview he said very calmly,"So do your findings with adult stem book called Dear Blue Peter just a few months before, he adds. 'I'd even cells mean it's the end of the need for embryonic stem cells?". I had to thumbed through the book in a shop but I didn't spot it.' think on my feet and give a very clear reply, because I *don't* think it's The press, on the other hand, spotted the BBC article (which you the end of that.' His 'Cure for osteoarthritis' experience had taught him can read at http://tinyurl.com/aqpqr6) and smelled a story. There how even a whisper of ambiguity could spell trouble. followed a second wave of media coverage that culminated in an

Even the basic facts of the case were subject to a little distortion early on, he recalls: 'A few reports made it sound like we'd grown a fulllength trachea with exactly the right anatomical shape. But it was a rather complex methodology to get over; once the BBC ran the animated diagrams that were prepared in Barcelona, I think people got the hang of the idea.'

Not surprisingly, most of the questions quickly became predictable. When they weren't, they tended to stand out. Hollander remembers chatting off-air to the presenters of a live local news programme. What, they wondered, was the best question he'd been asked? The BBC health correspondent, he told them, had asked him during the first day of coverage 'what it meant for me personally. He was the first person to ask me to stand back and think about it like that, and I'd given him an honest, reflex response. It sounds trite now, but I said that I felt very humble and honoured to be part of such a big thing'. Once on air, one of the presenters rather disingenuously asked him the same question. 'Of course, then it *did* sound trite, because it was too conscious and thought-out.'

Once the initial clamour had died down (and his children had stopped telling him to 'get off the telly because it was interfering with their viewing habits'), Hollander turned his attention to a by-product of the extensive media coverage: a groaning inbox of email.

'The majority were from people who had an illness and thought stem cells could help,' he says. 'I wanted to reply to everyone, and I didn't want to just get my secretary to send a bland reply.' It took some time to get to them all, and his responses to most were necessarily downbeat. 'But in almost every case,' he says, 'when I wrote back to say "I'm sorry but nothing is going to be possible for you", I got lovely emails back thanking me for taking the time to respond personally. That made me redouble my efforts to continue doing it.'

But shortly after that, a different and more challenging kind of email began to arrive in his inbox, when the story about growing human cartilage began – ironically – to develop another limb.

Something he prepared earlier

This new offshoot was much more personal in tone. The key players this time included not stem cells, but a dead bird, a precocious nine-year-old and *Blue Peter*.

To be brief, Hollander had written to *Blue Peter* as a child after the experience of putting a wounded bird out of its misery left him determined to find a way to save lives. The programme's producer, Biddy Baxter, had sent him a reply – judiciously phrased and free of condescension – and a Blue Peter badge.

'Over the years I'd thought back sometimes to that letter and her response, and the fact that I ended up in medical research,' he says.'After the stem cell story had died down, and in the run-up to Christmas, I took longer to reflect on the whole story and the enormity of being part of saving someone's life with the potential to help many more.'

The *Blue Peter* letter came to his mind again. On a whim, he emailed the programme to let them know how things had panned out for one badge-winner. Christmas arrived, and he thought no more of it. Until mid-January.'I got an email from the current *Blue Peter* producer who said that they'd all been moved to tears by his message and wanted to write a story for the BBC's own online news magazine.'Thinking that this was something in-house for BBC staff, Hollander agreed to be interviewed. And he also received a wuch prired cold Blue Peter badge.

The press, on the other hand, spotted the BBC article (which you can read at http://tinyurl.com/aqpqr6) and smelled a story. There followed a second wave of media coverage that culminated in an appearance on Radio 4's *Saturday Live*. 'From an academic point of view it wasn't a very substantial story, but it was kind of fun,' says Hollander. 'All my family enjoyed it, and I have to admit I'm rather proud of the gold Blue Peter badge.'

More problematic was the fresh flood of emails he started to receive. 'The Blue Peter story was predominantly in the tabloid press,' he says, 'and I was getting some emails - very heartfelt - from people who clearly didn't understand what was going on.'The headline of the BBC's piece ('Dear Blue Peter. I can save lives') left plenty of room for misguided optimism in the minds of some desperate people, judging by the emails. 'They said things like, "My son is dving" or "I'm dving and you need to save my life",' he says.'I had one heartbreaking email from someone whose brother had died, saying, "I hear you can bring people back to life".' Hollander admits he wasn't prepared for the emotional strain of dealing with so many tragic cases, but still he replied to every message. I had to design my answers very carefully so as to make the limitations of my work absolutely clear without being patronising. Does Hollander regret this second burst of media attention? He chews that over for a moment. 'Had I been asked in advance "Do you want to do this? It's going to be in all the tabloids". I would probably have said "No". because it was about me rather than the science. But I have to confess, I quite enjoyed the fuss. So on balance, I don't regret it. You can learn something from every experience.'

> Far left: A still from the stem cell animation Main image: Professor Hollander in the lab Left: Hollander as a child

Lacking in motivation? An hour with Janice Thompson, Professor of Public Health Nutrition in the Department of Exercise, Nutrition and Health Science, should do the trick. She has energy to burn, as Hilary Brown discovers.

nthusiastic is one way to describe Professor Janice Thompson. 'My colleagues are fond of telling me I never shut up,' she says cheerily, 'but I do when I have to.'

It's easy to see how Thompson's indefatigable nature has contributed to her success in carving out a niche as a leading expert in exercise physiology and nutrition. She's one of the few academics in her field to be equally qualified in both areas, which makes her sought after by commentators the world over.

She's also very candid and journalists in particular relish her direct style. When asked by The Guardian to comment on Olympic gold medallist Michael Phelps' diet and exercise regime, she couldn't help referring to him as '192lb of pure joy'. 'It just popped out,' she says. 'I meant it from a purely personal perspective, you understand.'

Talking turkey

Thompson's penchant for plain speaking is partly, she thinks, 'an American thing'. It may also have something to do with her parents being free thinkers who valued debate.'I was used to discussing politics,' she recalls of her childhood in northern California. 'This was in the early '70s, so there was plenty to talk about: the Vietnam War, the assassinations of Dr Martin Luther King and John F Kennedy, the women's rights movement. Dinner-times in our house were deafening."

In the school playground, Thompson relied on her verbal skills to keep herself out of trouble: 'I was tiny so there was no point getting into a physical fight. I was always the peace-keeper.'The negotiating skills she learnt have stood her in good stead, especially in her role as Head of Department: 'If there's a problem, I don't pretend it doesn't exist; I try to get people to be proactive in sorting it out. OK, I may be direct, but I think that's acceptable as long as you're respectful.'

Get up and go

Although Thompson was considered the 'smart one' of the family ('I wasn't that smart, I just asked a lot of questions'), a university career wasn't inevitable. Her father, a self-styled inventor and part-time walnut farmer, and her mother, an office manager, were keen for her to go but couldn't afford the fees.

So Thompson embraced the family's strong work ethic and paid her way through 12 years

of university education, turning her hand to an array of jobs. During her MSc, she constructed a chair for measuring body fat levels underwater – the most accurate method – and ended up using it to supplement her income.'I used to drive around in a pick-up truck with the chair, a portable water tank and a set of scales in the back, offering a weighing service to local health clubs. It was the nearest I got to fulfilling my childhood dream of becoming a female Jacques Cousteau.'

After studying zoology during her first two years at university, Thompson decided that a career working with laboratory animals wasn't for her. But she loved science and did a lot of outdoor activities, and these fuelled her interest in human physiology and its links with nutrition, exercise and disease. 'This was a new field then and there wasn't a natural home for it,' she says.'You could study physiology as part of a medical degree, but there was no way I could afford to go to medical school.'

So Thompson pursued a Master's in exercise physiology, and never considered a PhD until her supervisor suggested it. 'I saw people with PhDs as a different breed,' she says. 'I didn't come from that culture. My parents didn't go to university, although they were highly motivated and accomplished. My supervisor told me that that's pretty much what doing a PhD is all about - being tenacious, working hard and sharpening your skills."

The right balance

Encouraged, Thompson secured a funded place at Arizona State University to study for a PhD in exercise physiology and nutrition, and found her vocation. 'The course brought in elements from all sorts of other fields like biomechanics. motor learning and sports psychology. I knew it was what I wanted to do, and I started to believe I could be an academic,' she says.

Since then, Thompson has studied groups ranging from competitive athletes to postmenopausal women. Her work is all about energy balance - what people eat, how much energy they expend and how it affects their body. A seven-year research post to tackle diabetes and obesity in American Indians in New Mexico gave her a new layer of expertise in health behaviour and valuable experience of working with communities. Many members of tribes lived on reservations, and years of paternalistic, disempowering treatment by the US government had led to impoverished communities at high risk of disease. This research work was different because community members helped design and carry out the research.

'Most importantly, it taught me how to listen,' says Thompson. 'Talking isn't always appropriate because it minimises other people's contributions, which are crucial to community-based research. As academics, we may have the skills to get the grant money, but we don't necessarily know anything about how other communities live.'

around in a pick-up truck with a specially constructed chai a portable water tank and a set of scales in



The theory ...

This way of working doesn't suit everyone. 'If a fast-track career is your priority, forget it,' says Thompson. 'With projects like that, you don't have control over everything and you may have to wait for years to see results.' But an emphasis on community work from a broad, social perspective was exactly what attracted Thompson to the job in Bristol, where she is looking at ways to reduce obesity, diabetes and heart disease in high-risk groups by encouraging them to eat healthily and take more exercise. 'We know you can improve people's health in a clinical setting, where you have a lot of control over their diet,' she says. 'The question is how to get them to take responsibility for their own health, especially in a multi-ethnic society where disparate incomes and diverse value systems play a part in how we live.'

Thompson takes heart from the fact that policymakers now recognise the importance of physical activity and nutrition to health.'I started out at a time when the US government decided that physical education in schools should no longer be compulsory,' she says. 'It was a coup (though not a triumphant one) for those of us working in exercise physiology when, 20 years later, a report by the US Surgeon General cited low levels of physical activity as one of the top killers in America.'

... and the practice

Now that we know certain lifestyles are more beneficial to health than others, how do you get people to adopt them? Well, there's the rub. Thompson admits that there is no simple answer; individual behaviours play a part, but we're constrained by our physical environment and by other social factors. Our sedentary, technology-driven lifestyles, at least in the developed world, mean that we're no longer forced to be active to survive, and Thompson believes that we weren't designed to *want* to be active. 'Most people avoid exercise because they don't enjoy it,' she says.'But as individuals we need to be accountable for the choices we make. We can all make small changes to improve our health: walking or cycling instead of driving, cutting down on alcohol, quitting smoking."

Being so well versed in the theory, does Thompson take her own advice? 'I'm one of those weird people who likes to exercise, but I'm no saint,' she confesses. 'I'm not in the gym every day because I don't have time. And I like a pint of real ale as much as the next woman. Probably more.'

At the community level, Thompson tries to find creative solutions to health problems. With a colleague, the nutritionist Sue Baic, she runs 'grocery store tours' for South Asian women and other groups in Bristol, which involve explaining the health benefits of a typical trolley full of foodstuffs in a local store.

'Shopping is an everyday activity,' she says. 'People are often more comfortable learning about food and health in a tangible way such as this than they are consulting a dietician.'The programme has been so successful that it is being extended through Sandwell Primary Care Trust to various groups in the Birmingham area.

Lateral thinking

Because her work encompasses both prevention and treatment, there are plenty of opportunities to collaborate with colleagues across the University. One of the more unusual approaches came from a researcher in the Vet School, who asked her about the feasibility of a study of obesity in cats. Thompson was typically frank in her response: "Never mind the cats", I said, "It's the owners you need to be looking at." We impose our own attitudes to food on our pets - we feed on demand, give them treats like shrimp and fish. It's no wonder they're too fat. I should know, I had three of them.'

However keen Thompson had been on getting the job in Bristol, she'd never have come if it hadn't been for a timely relaxation of the rules on bringing animals into the country. 'My cats were so old, I knew they'd never survive the quarantine,' she says.'I blew almost all of the money I made selling my house in the US on the necessary rabies shots, blood tests and transport costs. There I go, shooting my mouth off again - now I sound like a mad cat lady. You probably don't want to print that.'

IDEAS MEN

They were both christened James Anthony, they both chucked out their TV and they both know how to argue. Professor James Ladyman (above left) and Dr Jimmy Doyle in the Department of Philosophy have been friends for over ten years, taking major disagreements in their stride – even the one about the existence of God. Nick Riddle sits in on a conversation.

Meeting of minds

JL: Jimmy and I both started our permanent jobs here in 1998 and became good friends immediately. We team-taught a first-year course; one of us would lead and the other would throw in comments or say, 'Hold on, that's not right', and we'd argue about it until the other one would say, 'Alright, I see what you mean, I should have put it like this', then we'd carry on. I'd be very witty and Jimmy would be my straight man.

JD: That's not entirely the way I remember it.

JL: The students loved it. And we pushed them way beyond what they should have been doing in the first year.

JD: You can talk until you're blue in the face about how philosophy is an ongoing dialectical process, but no amount of that will convey it as effectively as having two people actually arguing with each other. **JL:** We didn't just disagree, we also persuaded each other. They saw that we're susceptible to reason.

JD: And they saw that disagreement is a starting point in philosophy. **JL**: That's one of the great things about it. I always tell my students they don't have to believe any of the answers to the deep philosophical questions. They *do* have to try to understand the different theories and work out why an intelligent person could believe them, even if they don't. I think that's a very positive thing for dealing with conflict and disagreement in everyday life – to realise that people who think differently from you may have very good reasons for what they believe.

A priori

JL: I was the kind of kid who asked things like 'Why do we have money?' or 'Does the universe have an end? If it does, what's on the other side?'. My parents both left school at 15 and desperately wanted me to get a good education.

JD: My parents were both in the first generation of their families to go to university. My father did an English degree and my mother did an MA in botany. He was a headmaster, but I think he wished he could have been an academic. They both gave me the sense that the life of the mind was something to aspire to and I'm very grateful to them for that. I read a lot of philosophy when I was in the sixth form. It was the thing I was most interested in doing, and gradually it became the *only* thing. JL: I studied pure maths at the University of York, and I took a unit in philosophy in my first year. Unlike Jimmy, I had no real idea of what philosophy was. The lecturer started right at the beginning of Bertrand Russell's The Problems of Philosophy, where Russell asks whether there's any proposition of which we're so certain that it's immune from doubt. That's a question anyone can understand, and it opens up the whole subject of epistemology. I was completely gripped. I did a Master's in the history and philosophy of science and mathematics at King's College London, then a PhD in philosophy. When I got a temporary job at Bristol, I was absolutely over the moon.

JD: I did a philosophy degree at Cambridge, then I went to the US because there were no jobs here at the time (this was the late '80s). As a graduate student I became more and more interested in ancient philosophy, and Plato especially. I did my PhD at the University of Virginia, had a few temporary jobs in various US universities, then spent five years at Kansas State University, which isn't as interesting as it sounds. And then I got a job here, which was a great deliverance from Kansas.

The hub of the wheel

JD: Philosophy can float away out of your grasp if it's not anchored in the study of something technically demanding - something that is not itself philosophical but has close connections with philosophical study. JL: The great philosophers have always been people who did a lot of other stuff. Descartes worked on algebraic geometry, the theory of the formation of the solar system, meteorology, optics, physiology. Aristotle wrote more about botany than about what we would call philosophy. JD: And Bertrand Russell was a pioneering mathematician. JL: I think of philosophy as the hub of the wheel, where the theoretical foundations of all subjects come together: economics, psychology, mathematics, physics, politics, whatever. But if you're serious about tackling these questions, you need to try to approach the level of the most advanced theoretical practitioners in those subjects. That's very difficult. But I think it's very unhealthy to pretend that we can do our own version of the foundations of physics or psychology and call it 'the philosophy of mind' or 'the philosophy of physics', without being up to speed with the subject-specific knowledge.

What makes a philosopher?

JL: We have a set of skills that makes us more philosophers than anything else. It has to do with understanding the relations between concepts, and with examining people's arguments. When someone gives a paper to the Philosophy Department, they tell us the theories they're interested in, then present their argument.

JD: They'll pretty much start out from propositions that they think the audience can't really take exception to, and move from them through valid steps and reasoning to a more surprising conclusion that they seek to persuade the audience of.

JL: We then scrutinise their argument and say, 'Well, I didn't see how this followed', or 'I thought there was a point at which you conflated two meanings of something and that allowed you to move from one line of the argument to the next'.You can apply that to any subject.



JASON INGRAM

What do you mean by 'It's your round'?

JL: There's a common cliché that says if you ask a philosopher whether it's wrong to commit murder, they'll say, 'What do you mean by wrong? What do you mean by commit? What do you mean by murder?'. But philosophy is partly about making sure we're clear about the meanings of the terms we're using so that we don't make any mistakes in reasoning. Do I 'commit' murder if I don't do anything to prevent someone's death when I could have done? But it's hard to switch off that way of thinking. In everyday life, it's often not as important to be that precise, and words get used in ways where there are several meanings floating around. So it can infuriate people who are chatting to you in the pub if you start saying, 'Hold on a minute – what do you mean by that?' or, 'No, that doesn't follow'. You can't be completely literal-minded all the time.

A little respect

JL: An argument in philosophy isn't the same as an argument in, say, politics. If you want to criticise a point of view, you find the best possible arguments for it and develop them as sympathetically as you can, *then* start your criticism. Whereas if you're a Labour politician criticising the Conservatives, or vice versa, you put up a bastardised version of what they say, and then knock it down. If I disagree with someone, I want to make their view as intellectually respectable as possible before I start.

Turning off and tuning in

JL: I haven't had a television for years. I find it hugely liberating. I read *The Economist* and the *Times Literary Supplement* and maybe the weekend papers, and I listen to Radio 4; that's about as close to popular culture as I get. But it's not a retreat from the world to chuck out your TV. In fact, you can be more engaged with the world because television isn't really *about* the world. It's about something very ephemeral.

JD: I haven't had a television for a while. It's much more recent with me, though. It wasn't anything to do with what James did. **JL**: No, he would never admit to that.

Conversation piece

Life: a user's manual

JD: In the Ancient Greek world of the cynics, sceptics and stoics, philosophy was first and foremost a way of living. JL: It goes back to Socrates, whose fundamental questions were 'What is a "good life"?' and 'How should I live?'.

JD: To understand properly how we got from there to the situation now, where professional philosophers often study philosophy in a very compartmentalised way, you'd have to look at the history of Christianity and the rise of modern science.

JL: A lot of Continental philosophers have tried to hold on to that bigger picture. They see the horrors of the 20th century - the Holocaust and the failures of Communism – as being a consequence of the Enlightenment and the idea that society could be organised along 'rational' lines. They want to say something about what's gone wrong and how we should live. But a lot of contemporary analytic philosophers think of that as irrelevant - you just take a theoretical question and use these logical chopping techniques. Questions about 'the good' or 'the best way to live' are trivialised as having more to do with an expression of feeling.

JD: So there's quite a wide consensus among philosophers, and also in the culture at large, that when people talk about 'the good' or what's 'important', all they're doing is expressing subjective attitudes that can't really be called right or wrong. There's no room in that view of things to assign any serious importance to questions like 'How should I live?'. JL: I think that's why a lot of students are disappointed; they're drawn to philosophy as teenagers when they want to know the meaning of life. 'Why am I here? What's it all about?' And they get here and we're saying, 'Okay, so is knowledge justified true belief?' or whatever. And they think, 'What's this got to do with what I was interested in?'. Which is why they might be much happier studying Sartre or Camus or ethics, because those subjects address questions about the nature and purpose of human existence. **JD**: The kinds of questions that might drive you to become interested in philosophy in the first place.

JL: So if some crisis happens to you, you won't find any solace in the vast majority of analytic philosophy texts. In the earlier conception of the subject, that would be insane because its whole purpose was to give you ... well, something. To tell you how you should live or how to minimise the pain of existence. It's supposed to address these things somehow.

Teaching

JD: A lot of students get their conception of philosophy and how it should be done less from reading the books than from seeing how we talk to them and talk to each other. As an undergraduate, I went to quite a few lectures where I'd be thinking to myself, 'This guy doesn't seem very interested in what he's saying. Why should I be interested?'. I think the best impression you can make on a student is simply one of being interested in what you're doing.

JL: Students like Jimmy a lot. He had a Facebook page set up about him and people were putting things like 'I saw him walking down the street earlier'. I don't think the students really like me much. JD: Get out of it

JL: Maybe I have a bit of a reputation for being intimidating. I do first-year introductory lectures to 200 people, lots of them open-unit students who are pretty casual about the subject. If someone's reading a newspaper, I tell them to stop it or get out. They tend to get a bit shocked by that. But if you say that a few times, the atmosphere changes and you don't get that blasé attitude, which is no good for anybody.

Innovating the omelette

JL: People are becoming over-focused on innovation in teaching. Of course you should use whatever the best technology is to accompany your teaching. But the basic model - with lectures, seminars and tutorials - doesn't need to be touched or innovated. We know what we're talking about: give us any audience, we could teach them philosophy until the cows come home just by standing up and talking to them with a blackboard and some chalk. The other stuff gets in the way sometimes. Where's the innovation in how you make an omelette? Somebody centuries ago worked out how to make it, and even the person who

makes the best omelette always makes it the same way. They just get better at doing the same basic thing. I think giving a lecture is a bit like that.

Natural born sceptics

JL: The best of our students are quite amazing. They're really smart, rounded, civilised, interesting young people. They'll ask you a question that makes you realise you've misled the audience in the way that you'd expressed something. You then have to qualify what you said. JD: I'll often realise, on the basis of something a student said, that I need a better argument there. And that can start a train of thought that leads to a major revision in my beliefs.

JL: First-year students are natural sceptics. A professional philosopher has already accepted the rules of the game and then makes moves accordingly. But students don't have to accept anything; they can hit you with something you're not expecting. When you get to the end of a firstyear lecture course and they've all been carried along by it, that reaffirms your faith in the subject - there really is something to all these questions we're asking.

The well-tempered thinker

JL: We're both pretty hot-headed.

- JD: James is more organised, by a long way. You go into his office and there are piles of papers very regularly arranged.
- **JL:** Though it *is* a total tip in there.
- JD: I think he's getting more outspoken in his old age.
- JL: I am vociferous, I suppose, yeah. But Jimmy gets really worked up about things as well. Sometimes after a department seminar, we'll have
- a discussion and he'll be furious about something.
- JD: Less so these days. I mean, now I'm a married man.
- **JL:** Now you're getting regular sex.

Vive la différence

JL: The biggest argument we ever had was in a pub, over whether or not the ontological argument for the existence of God is prima facie sound. JD: I came very close to trying to punch you.

JL: Yeah, he left because he thought he'd have to hit me otherwise. You'll notice that it wasn't over *whether* there is a God, or over whether the argument is sound, but whether it's prima facie sound. That's a philosophers' argument. A lawyer who wants to argue for a proposition will throw ten different arguments at the jury and hope that one or two of them will stick; it doesn't matter if they're mutually inconsistent. A philosopher needs more than that. A colleague once told me he'd been along to someone's talk and he'd gone up to them afterwards and said, 'I agree with your conclusion and I agree with all your premises, but I thought your argument was terrible.

JD: Our own so-called areas of specialisation don't overlap much. James is primarily a philosopher of science, of metaphysics and epistemology, whereas I'm much more history of philosophy, philosophy of mind and ethics.

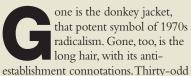
JL: Jimmy's also a committed Christian and I'm an atheist. **JD**: Given all that, it's surprising how much we agree on. JL: I think we agree more with each other than Jimmy would agree with most Christians and I would agree with most atheists. JD: When we do disagree, we can do so quite violently, but without any danger of it being taken personally.

JL: But neither of us has got to where we are without a certain amount of intellectual self-confidence. We're not going to be crushed if the other person really takes us on, or even if we end up having to say, 'Oh yeah, you're right - sorry, I got that wrong', which does happen sometimes. JD: James has said that a few times, that's true.

Other people's jobs

A UNION MAN

Bill Beaumont is Local Association President of the University and College Union (UCU), a job which, until recently, he combined with lecturing in the School of Policy Studies. As he approaches retirement, he talks to Hilary Brown about activism, academia and seeing both sides of an argument.



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fashion statement. Bill Beaumont is

still, by his own admission, a bit of a

constantly fighting your corner.

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A certain amount of confrontation

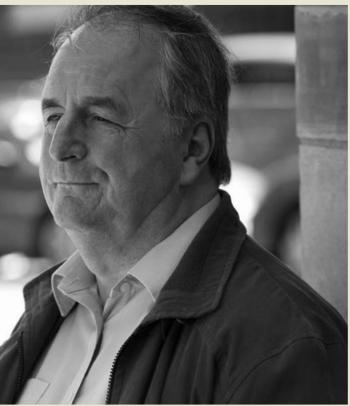
'There's still a role for public sector unions. but their power is limited.' years of trade union activism say more about a person's empathy and concern

goes with the territory when you're a union rep, and Beaumont agrees that there is an association in people's minds between unions and 'trouble'. 'I was more stand-offish with management 25 years ago, and some people are still wary of me,' he says. 'But I've come to realise that negotiations are more likely to succeed where there's mutual respect on both sides.'

Beaumont's feet are planted firmly in the union camp. It's not unusual for him to find himself at odds with the University and he admits he'd be failing in his job if he were universally popular. He dismisses name-calling as a cheap tactic, however, because it doesn't build trust in the long term. 'UCU aims to work seriously with the University to improve conditions for members,' he says.

A social conscience

Beaumont's altruistic tendencies were first awakened by a Home Office recruitment ad for probation officers.



A chemistry graduate, he was working as a trollev-bus conductor, unsure about what to do next, except that it wasn't going to involve dyestuffs (at university he'd found science in general, and his industrial placement in particular, dry and uninspiring). Drawn to the idea of helping disadvantaged people, he embarked on a Home Office-sponsored postgraduate diploma in applied social studies. This committed him to a job in the probation service, and Beaumont was happy to work with offenders, a group he describes as being especially marginalised and attracting little in the way of public sympathy.

Issues of social inequality raised their ugly head early in Beaumont's 15-year stint with the Inner London probation service. 'In the early '70s, the abject poverty in Camden, where I worked, was in stark contrast with the increasing gentrification of neighbouring areas as Hampstead and Highgate spread southwards,' he recalls. The idea that economic and social factors could have a bearing on life chances resonated with Beaumont's own experience. The son of workingclass Scottish parents, he grew up on a council estate in Derby, attending a newly established grammar school and becoming the first in his family to go on to higher education. But he remembers a lukewarm reception during one interview for a place at an 'old' university: 'You could see the shutters come down the minute the tutors realised I hadn't been to one of

the more established, well-regarded grammar schools in Derby, he says.

For a social worker, the worst consequences of lack of opportunity were plain to see: they fed into the spiral of crime, violence and drug and alcohol addiction that characterised the lives of many of his probationers. But he soon realised that there were limits to what he could do to help rehabilitate individual offenders because of the constraints of the system: 'People were being released from prison with nowhere to go and no money, which would lead to re-offending.'

The common good

Beaumont began to take a more active role in Napo, the probation officers' union. 'The thing that appealed to me about Napo was that it was a trade union, a professional association and a campaigning organisation rolled into one,' he says. 'As well as campaigning for social and criminal justice, there were issues about the changing role of probation officers. The service was becoming more enforcement-oriented, with an emphasis on control measures such as tagging and curfews, which we opposed. We coined the phrase "screws on wheels" because we felt we were being turned into community prison officers rather than being able to work with offenders on a consensual basis.'

There was also plenty of activism around improving working conditions. 'The starting salary for a probation officer was less than a thousand

Other people's jobs

pounds, which wasn't enough to live on in London,' Beaumont recalls. 'The probation service was also losing a lot of people to newly restructured social services departments that were offering better pay.' It was a period of radicalism, and Beaumont was elected General Secretary of Napo in 1985, a post he then held for eight years. 'I wouldn't have been surprised if there'd been a note in some Home Office file along the lines of "Never give this man a job if he ever leaves his current employment", 'he jokes.

Pastures new

In 1993, keen to pass on some of his professional experience, Beaumont took a job in Bristol's then Department of Social Work, lecturing on offending and related issues such as homelessness and substance misuse. His knowledge of equal opportunities acquired at Napo was also relevant to teaching in areas such as anti-sexism and anti-racism. 'Colleagues and I injected the issue of class, which had been a no-go area in the Thatcher years, back into the curriculum,' he says. 'It's nonsense to suggest that social and economic deprivation is irrelevant in any field of social work.'

Being new to academia, he was at first unfamiliar with university politics. It took me a while to realise that Bristol regarded itself as an elite institution,' he says. 'Social Work was atypical – we had more black, working-class and mature students than other departments, and more local students, many of whom had never been this side of the city until they came here. One of my early *faux pas*, when the University first started getting serious about increasing the number of outstanding students from non-traditional backgrounds, was to suggest that we simply put a cap on the number of students from independent schools.'

Back into the fold

Before long, Beaumont was a local committee member in the then academic union, the Association of University Teachers (AUT). 'I hadn't intended to return to active union involvement,' he insists, 'but jobs were at risk because of a move to combine the Departments of Social Work and Social Policy with the School for Advanced Urban Studies to form a of researchers now on permanent contracts compared with figures in the single School for Policy Studies.' His union experience was too valuable to be squandered and he was eventually elected Local Association President, continuing in the role part-time when the AUT merged with the National Association of Teachers in Further and Higher Education to What the future holds for unions is anyone's guess. The relationship become UCU.

One time-consuming part of Beaumont's job as a union rep is individual casework, where his social work training helps him maintain the necessary professional detachment in cases that can be distressing for those involved. 'Disputes between employees and their managers arise in any institution, and universities are no exception,' he says. 'Things can be complicated by the fact that many managers themselves belong to UCU, so we can have members on both sides of a conflict.' Mediation is usually the best way to resolve disputes satisfactorily. Formal grievance procedures rarely end happily and most employers tend to support their managers even when they make mistakes,' says Beaumont.'That just seems to be how organisations work, regardless of the people running them.'

Collective success

In the collective arena, UCU works closely with Bristol's two other campus unions, Unite and UNISON, whose members are all support staff. Here Beaumont's experience in Napo comes to the fore. 'Having worked for a non-academic union, it's easier to see other viewpoints. Many support staff feel that UCU members are a privileged group and that their own interests are secondary to those of their academic colleagues. It's important to overcome these barriers.'

He points to the recent Reward process, where a new single pay and grade structure was implemented to cover all staff, as an example of successful joint working between the unions and the University. 'To its credit, Bristol didn't go for the easiest option. It embraced the principle of equal pay for work of equal value, which meant making fundamental changes to the old grade structures. Some people gained more than others, but the situation has improved for most.'

Progress has also been made in improving conditions for early career researchers. 'Again, Bristol is ahead of the game, with around 50 per cent



teens and low twenties in comparable institutions,' says Beaumont.

Relevant or redundant?

between the University and its unions has generally been good, says Beaumont, 'but the problem now is that we're running into hard times'. 'The past ten years have been a period of relative growth and comfort, but the ability to work in partnership is bound to be tested given the current national economic climate. Holding on to the notion of a positive working environment is tougher when people fear for their jobs.'

A problem for trade unions traditionally is that when it comes to change, it's much easier to get a consensus about what you don't want than what you do want. 'This is exacerbated in UCU, which doesn't confine itself to narrow trade union concerns but has a range of professional interests, such as how students are educated and how research is assessed,' says Beaumont.'Added to that, there's little old-fashioned trade union solidarity among members, because they tend to be highly educated and individualistic with strong views of their own. It can be a bit like trying to herd cats.'

More generally, Beaumont is doubtful that the sense of excitement that existed in the '70s, when unions felt they could be part of progressive social change, can easily be recreated. 'After the havoc wreaked on the unions by Thatcher in the '80s, the big question was whether new Labour would be very different. The answer has been a rather disappointing no,' he laments. 'I think there is still a valuable role for public sector unions, but their power is limited even within their specific area.'

With his full retirement approaching in July 2010, Beaumont regrets leaving at a time when Bristol, like all universities, is up against some real challenges. 'I've always tried to use my skills to good effect, and it'll be strange not being in that position any more,' he says. All is not lost, however, as he happens to have a rather awkward neighbour: 'Maybe I should try negotiating with him over the volume of his Wagner.'

Richard Edwards, currently on secondment from the Education Support Unit as Faculty Head of Academic Administration in the Faculty of Medicine and Dentistry, has a soft spot for a certain bear and, on the whole, would rather be in Vancouver.

What is your favourite meal? Homemade fresh pasta. It takes hours to make so it's a real treat when it happens.

If you were offered one superpower, what would you **choose?** The ability to ride in the peloton of the Tour de France. Anyone who can burst into a flat-out sprint after riding nearly 200km in an afternoon has realworld superpowers.

Cat or dog? Or neither? Cats, because of their independence.

What do you sing in the shower? Depends on my mood – the repertoire runs from lilting Irish folk, through melodic Australians, to angry Americans.

Favourite smell? Barbeques.

Your greatest character flaw? Inability to know when full at buffets.

What other historical period would you like to have lived in? Can I choose the future? Sorry to be awkward.

Native Americans believe we all have a Spirit Animal. What would vours be? Border Terrier. I often put my head to one side when I'm contemplating what to do.

Favourite spot in the world? Stanley Park, Vancouver.

What winds you up? People who actively search for reasons to say no to positive change.

geography degree. 'My philosophy is this ...' Don't dwell on past decisions. You made the best decision you could at the time.

Is there a question you'd like to be asked? I have some time this week how can I help you?

TWENTY QUESTIONS

One book, one piece of music, one film. Stuart: A Life Backwards by Alexander Masters. Speak for Yourself by Imogen Heap, Ferris Bueller's Day Off.

What one possession would you save from a fire? If the fire was at my parents' house, I'd save the Paddington Bear I've had for almost

Who would you like to banish to a desert island? Robert Mugabe.

30 years.

bikes on it?

Cycle often?'

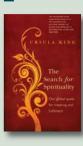
You can make one new law. What would it be? Something to deal with the current state of the railways; how can any train that large only fit two

If someone met you for the first time, what could they ask you to break the ice? 'That's a nice bike.

Something you wish you'd known about life when you were 18? You'll never get the opportunity to take months off work or school until vou retire, so take a gap year now.

Your biggest life-changing experience (so far)? Being knocked off my bike by a car, and all that followed.

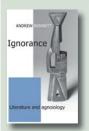
When and where were you happiest? On a field trip to Tunisia in the second year of my



The Search for Spirituality by Ursula King

(Canterbury Press) In this examination of the meaning of spirituality in different languages, faiths and societies, Ursula King, Professor Emerita of

Theology and Religious Studies, looks at how spirituality is linked to all stages of life. She assesses its significance in education, its impact on physical and mental health, how women's spirituality differs from men's, and the contributions of feminist and ecological spirituality. The book also explores how the transformative experience of the arts can strengthen our resolve to face the struggles of everyday life.



Ignorance: Literature and Agnoiology by Andrew Bennett (Manchester

University Press) Ignorance is part of the narrative and

poetic force of literature, argues Professor Andrew Bennett from the Department of English. This new study proposes that the dominant conception of modern literature involves an often unexpressed engagement with the experience of not knowing. Bennett looks at how ignorance is a subject of fascination for writers from Wordsworth and George Eliot to Philip Roth and Seamus Heaney. He argues that literature's engagement with ignorance has played an indispensible part in modern attempts to determine what it means to be human.



The University of Bristol: A History by Sarah Whittingham

(University of Bristol) This, the second of the University's centenary books, is a history of the institution from its humble

origins on Park Row to its current status as an international academic powerhouse.

THE SVIMMING DFTFCTIVE

Summers spent diving in the Caribbean and the Isles of Scilly – what's not to like? Hilary Brown catches up with maritime archaeologist Kimberly Monk when *she's home and dry.*



Above: Monk photographed on Tiny Dancer, courtesy of Nick Richards

Nothing fascinates Kimberly Monk more than a pile of soggy wood. It may not seem like a promising subject of study, but it has formed the basis of her career in the Department of Archaeology and Anthropology, where she is co-ordinator of the MA in Maritime Archaeology and History and lecturer for postgraduate and undergraduate units on maritime archaeology. The search for said dank and dripping data shipwrecks, in other words - takes her to locations as diverse as the British Virgin Islands, the North American Great Lakes and the balmy waters off the south-western tip of the Cornish peninsula.

But don't be fooled – reaching the shipwreck sites themselves often involves working in hazardous conditions. Monk is a veteran of the underwater world; a former professional diver, she admits to having swum against the prevailing current. 'You usually start out as an archaeologist, develop your specialism and then learn how to dive to search out your investigation sites,' she says. 'I did things the other way round.'

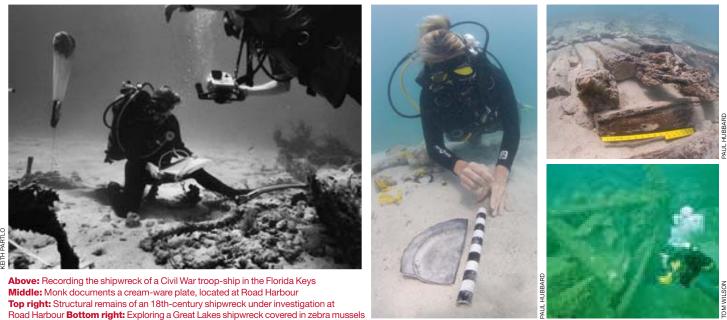
Watery origins

Monk was born and raised in Toronto. Having shelved her original plans to pursue a degree in veterinary medicine, she was working as a scubadiving instructor when she came across some maritime archaeologists monitoring shipwrecks in the Fathom Five National Marine Park in Tobermory, Ontario.'I was fascinated by what they were doing - it was like underwater detective work,' she says. 'I was also interested in the conservation aspects of their work. As a diver, you're very aware of the need to protect fragile environments.'

For all the interest generated by early adventurers such as Jacques Cousteau, and despite pioneering work in the 1960s by George Fletcher Bass, founder of the Institute of Nautical Archaeology, maritime archaeology was still an underdeveloped academic field as recently as the 1990s when Monk looked again at her academic options. 'It took a while for maritime archaeology to shake off its early associations with treasure hunting,' she says.

She embarked on an archaeology degree at the University of Western Ontario and got her underwater fix by volunteering in her spare time for Save Ontario Shipwrecks, an organisation dedicated to the study and preservation of Ontario's marine heritage. Thus began a love affair with the North American Great Lakes. 'They're ideal for exploration,' says Monk.'They contain masses of wrecks because historically shipping was the predominant means of transport, even up until the early 20th century. Everything, from people and animals to food and building materials, was transported in wooden bulk carriers.'

After completing an MA in nautical archaeology at East Carolina University, Monk chose to pursue a PhD at Bristol, a move that put her 'in the right place at the right time' when the opportunity arose to co-ordinate the Maritime Archaeology Master's programme.



Road Harbour Bottom right: Exploring a Great Lakes shipwreck covered in zebra must

Maritime mysteries

When you're an archaeologist, fieldwork is where you really get the chance to play detective. Take the case of the missing British Royal Navy sloop HMS Nymph, a mystery that's been bothering historians for years. Monk has led a series of summer field schools and projects to Tortola in the British Virgin Islands to look for answers. 'The ship caught fire and sank at Road Harbour in 1783, after the purser's steward accidentally knocked over the lights in the steward or slop room,' says Monk. 'Artefacts thought to originate from Nymph have been discovered, but the wreck itself has never been located.'

HMS Nymph continues to elude search teams, causing them to dub the site HMS Myth, but extensive dredging of the harbour to make way for new development has uncovered many other wrecks that reveal much about the former British colony's history. 'Road Harbour was particularly notorious during the American Revolution, when privateers would sail in and harass the local population, so the British usually kept a ship in port to discourage them,' says Monk. Along with the casualties of war, many ships ran aground on the reefs or were wrecked in tropical storms. Heavy silting on the harbour floor has covered up and preserved remains for years, providing fertile areas for study.

Monk learned early on that what you don't find can be just as telling as what you do find. She recalls a project on the Aucilla River in Northern Florida where she was assisting excavations of a palaeo-Indian kill site. 'We uncovered the remains of a 10,000-year-old mastodon about ten metres underwater. On one occasion, I was sure I'd found a significant tool of some kind. Imagine my surprise when it turned out to be fossilised alligator dung, she says. Still, it played a role in telling the story of the area, and it made me aware of the possibilities of working in this field.'

Sunburn, sharks and shipping lanes

Maritime archaeology can be very equipment-intensive. As well as diving kit and a boat to dive from, there's sonar for scanning the sea-bed, magnetometers for detecting ferrous objects, and water dredges and air lifts for removing sediment. These go a long way to making an archaeologist's life easier, but fieldworkers are still at the mercy of the elements. Strong tidal flows or poor weather can limit site accessibility, shifting currents may bury remains and exposed wood is eroded over time.

Underwater excavation is all the more painstaking because the depths that divers can reach, and the length of time available on a dive, are

Despite subarctic water temperatures and neighbouring polar bears ('a bit of a shock after the Caribbean', she concedes), she's looking limited. 'Sometimes we're working at depths of more than 27 metres, so forward to the Hudson's Bay project. 'To study three 17th-century we only have an hour a day underwater and progress is slow,' says Monk. Some of her hairier moments have occurred in shallow, rather than shipwrecks in the shadow of a historic British trading post is a rare deep, water. 'Working in a busy port like Road Harbour is tricky because opportunity,' says Monk. 'And to breath life into a bit of Canada's of the constant boat traffic overhead, she says. 'We indicate our presence history − my history − will be immensely gratifying.'

with floats, but the odd passenger ferry has come too close for comfort.' She's happier in deeper water, where the main danger is getting sunburned while waiting to get to the site. 'It's rare to come across sharks, and if you do they usually pay no attention to you. Barracuda are more unnerving. They can be up to six feet long with a jutting lower jaw and fang-like teeth, and they have a habit of circling round you.'

Marine wildlife sometimes works in a diver's favour. 'In parts of the North American Great Lakes, there are freshwater mussels that cling to the wood of the wrecks, helping to filter the water and aid our visibility,' says Monk. 'You could still walk the decks of some of ships we've found dating back to the 1860s, they're so well preserved.' Sea wrecks fare less well: 'The Teredo worm, for example, likes to feed on wood, but its very presence at a site can be indicative of the size or origin of the ship – it all helps with piecing together the puzzle.'

Coming home

It's the human stories behind the findings that most interest Monk, especially when the humans have names like Sir Cloudesley Shovell. The illustrious career of the commander-in-chief of the British fleets came to a disastrous end in 1707 when several ships under his command were wrecked off the Isles of Scilly on their return from various skirmishes in the Mediterranean. Among these was HMS Firebrand, the subject of a joint research project between the University and the Cornwall and Isles of Scilly Maritime Archaeology Society.

'Records suggest that a sailor on his ship tried to warn him they were off course, but Shovell ignored this advice and carried on,' says Monk. 'Whatever happened, more than a thousand people, including Sir Cloudesley himself, died in the tragedy.'The incident led to the Longitude Act in 1714, which offered a prize for anyone who could improve navigation by finding a method of determining longitude at sea.

Another British warship, HMS Hampshire, is Monk's latest project: she is spearheading an expedition to investigate the site of the only naval battle to have taken place in Arctic waters. The Battle of Hudson's Bay took place in 1697, when a French warship defeated an English squadron to take York Factory, one of the Hudson's Bay Company's trading posts.

'It wasn't the most glorious epitaph for the English fleet, losing a 50-gun ship and a Hudson's Bay Company ship along with the fort,' says Monk. 'But the loss of the French ship the following day would have been a consolation.'

OR FOR THE BEST

He could have become an accountant, thanks to his cricketing connections. But Howard Jenkinson, Professor of Oral Microbiology in the Department of Oral and Dental Science, enjoyed science too much for that. Dara O'Hare hears about his pursuit of bacteria – all the way to Australasia – and the key role of the toothbrush in our general health. rofessor Howard Jenkinson is apt to get reminiscent about his early interest in science, and about the havoc that ensued.

'My father let me have a spare room to do my chemistry in,' he says, 'and I'd buy things like magnesium powder and potassium nitrate from the chemist. Some of the chemicals ended up sprayed on the walls.' Not that he was irresponsible, though; when it came to the fireworks, he'd move to the garden. 'I'd pack the chemicals into tight tubes and go into the shed and detonate them. I'd probably be arrested now.'

Biology was an early interest, too. The young Jenkinson liked to trap – humanely, he hastens to add – mice and shrews. And then what? Experiments? 'No, I'd put them back into the wild, like a good chap,' he says reassuringly.

It's hard to imagine this esteemed Professor of Oral Microbiology, whose pioneering work on the link between bleeding gums and heart disease hit the world's headlines last year, as a firework-maker or shrew-catcher. As it turns out, there was another career choice in the offing. But he went for microbiology – and he has never looked back.

It was a slow start, however. Of his time at Warwick University in the mid-1970s, he says, 'I think I did the minimum possible work in the first year and a little bit more in the second, then in the third I suddenly realised that I could really do this microbiology stuff, and that I enjoyed it very much.' He got a good degree, and academia seemed the natural route to take ... didn't it?

'Well, not exactly,' he says.' I played cricket for my old school, the "old boys" team. They were in a London league, so quite a good standard.' The captain of the team heard about Jenkinson's degree and offered him a position in his London accountancy practice.

'He told me that, if I was a bright lad, they could train me up. He said, "In a few years I think you'll be really happy".' Jenkinson replied that he was thinking more about doing science.

'He said, "Oh. Well, I was talking about money, you realise, Howard. Not science". I told him I wanted to do something more than just make money. That rather put him off. I didn't get to bowl so much after that.'

From microscopes to binoculars

So, having decided to follow the science rather than the money he headed to Nottingham University to do a PhD in applied microbiology. And the 'applied' bit is important here.

'There's a situation that you find a lot in science: after a while looking down the microscope, you then need to use binoculars,' he explains. 'I've never wanted to look in smaller and smaller detail. I like to find the detail up to a point, then pull back to try to find something bigger coming out of what I'm doing.'

After getting his PhD, Jenkinson had a meeting that was much more auspicious than the one with the cricketing accountant. He went for an interview with Professor Joel Mandelstam for a postdoctoral position at Oxford University. 'He said to me, "Let me explain what I want you to do here", and started talking about genes and molecules and stuff that was way over my head, because I hadn't been working on those. Then he asked, "Do you understand all that?". And I said, "Well, not really – about 20 per cent of it, I suppose". He liked that. He told me that most people said they understood more than they really did, which was usually less than 20 per cent.' Working with Mandelstam was, he says, 'a *very* sharp learning curve, but superb'.

During his five years at Oxford he worked on the biochemistry of bacteria that formed spores resistant to heat and desiccation, and the genetic changes that took place when the spores were produced. Making extensive use of a new technique called protein electrophoresis, he produced patterns that described how a spore coat forms in layers, like an onion. When genome sequencing came along 25 years later, it turned out that we'd got the structure of that almost completely right,' says Jenkinson, still visibly chuffed.

While at Oxford he accepted an invitation to head up a new molecular biology unit in the dental school at Otago University in New Zealand. He headed off with his girlfriend (now his wife) to work

on the emerging field of *Streptococcus* genetics in dentistry – and stayed 12 years.

Most people associate *Streptococcus* with sore throats, but they can do much wider damage. Jenkinson looked at how micro-organisms like *Streptococcus*, and the yeast *Candida*, survive in the mouth and affect the whole human body.

Research published in the United States at that time suggested that we can acquire the wrong (ie harmful) micro-organisms in the mouth as infants, but that if we acquire the right ones first, they can coat the teeth and gums and protect our bodies from the wrong ones. Jenkinson wanted to understand exactly how it is that streptococci colonise teeth, so he called on the services of a colleague at Otago. 'Gerald had a colony of mice, and he'd taken all the microorganisms out of them using antibiotics so that he could put back the ones that he wanted to study in isolation. He suggested using the mice to see what happened with streptococci.'

When their grant proposal to the Health Research Council in New Zealand for this work was not only approved but ranked nationally as the year's top grant, the Wellcome Trust in London sent someone out to find out more about this bright young British researcher. Which is how, after over a decade, he was lured back to England.

He talks fondly of his time in New Zealand. 'I loved the blue skies and the blue sea and standing on the point at Dunedin, feeling the space and the smell,' he says. 'We didn't worry about the fact that we didn't have proper Marmite or real orange juice.'

The skills he picked up went way beyond microbiology. 'I learnt how to change a drain in a kitchen sink, how to rewire a room, how to take down a wall ... This was just the New Zealand way – you roll up your sleeves and get on with it. I learnt a lot about laboratory apparatus too; sometimes you had to repair it yourself, or get an engineer to muddle through it with you.'

The tooth at last

When Jenkinson came to Bristol for an interview for a professorship, he was captured by its charms. 'It should be a standard way of getting people interested in Bristol,' he says. 'You go to an outlying pub, then you go and look at the Suspension Bridge on a sunny day and you think, "Gosh, this is lovely". I was very pleased to be offered the position here.'

Since his return, he has carried on 'probing the parameters of the way that micro-organisms interact with human tissues', for which he has received significant grants from the British Heart Foundation, the Wellcome Trust and the National Institutes of Health, USA. At the moment his team is looking at organisms that colonise the lungs as well as the mouth, and a *Streptococcus* that infects the vagina and can cause neonatal sepsis, a condition with a high mortality rate for infants and a major health risk for the mother.

Given these risks, not to mention the more obvious dental hygiene angle, Jenkinson professes amazement at the number of people who still don't brush their teeth. The long-term effects of such behaviour on their health put an enormous strain on the NHS, not to mention the personal suffering that ensues.

But perhaps a change is afoot. When Jenkinson's research demonstrated that brushing one's teeth can reduce the risk of heart disease, the international media jumped at it. On the day the story broke, he was dragged from his early morning shower to do a live interview with BBC *Radio 5 Live*, which marked the beginning of a whirlwind of media coverage, including (to his great pleasure) an article in *The Sun*. What gratified him still more was the response from dentists around the world, 'thanking us for saying publicly what they've been telling their patients for years: a healthy mouth is a healthy body'.

With this in mind, one can't help wondering whether Jenkinson himself has good teeth. 'I had a late 1950s childhood, so I have late 1950s teeth,' he says, attributing this state of affairs to 'sugary drinks and sweets, not to mention no fissure sealant and no fluoride toothpaste'. He admits to having had one or two teeth out, 'but I do believe in our research results, so I keep the rest of them clean and tidy – not least because I loathe toothache.'



E D O t G S



Main image Staff volunteers (from left) Hannah Dowling, Natalie Fisher, Julia Cannon and Ian Blenkharn at Lawrence Weston Community Farm. They were among 40 members of the University's Academic Registry who took advantage of their staff volunteering day to help renovate the farm's grounds over the summer.

Above A still from 'Performing Guantanamo', shown at the Portraits of (In)Security exhibition at Bristol's Centrespace Gallery in June. The multimedia exhibition, organised by the Department of Politics and curated by postgraduates Elspeth Van Veeren and Christina Rowley, looked at the links between art, politics and concepts of (in)security.

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Above From left, John Wilkins, Caroline James, Sue McMullen and Batook Pandya, four local heroes who received honorary degrees from the University in July as part of its centenary celebrations. John Wilkins is a former paratrooper who has raised £100,000 for Wallace and Gromit's Grand Appeal; Caroline James is a nurse at the Barbara Russell Children's Unit at Frenchay Hospital; Sue McMullen is founder and chair of the Vassall Centre Trust, a charity that provides workspace and employment and volunteering opportunities for disabled people; and Batook Pandya is a leading figure in race relations in Bristol.

Right Megan Smith from Brentry Primary School examines a damaged leaf from a horse chestnut tree. She was one of 900 local school children to take part in an experiment designed by Dr Darren Evans and Dr Michael Pocock of the School of Biological Sciences to help prevent Britain's conker trees from being attacked by an 'alien' species of moth. Participants monitored their samples to see whether the moth caterpillars or their natural predator, a wasp that lays its eggs inside the caterpillars and kills them, hatched out on to the leaves.



Above Counting teeth at the Royal Society Summer Science Exhibition. Visitors also had the opportunity to make a mould of an upper or lower set of teeth using modelling lab putty. The activities complemented the University's Chewing Robot display, a replication of the human jaw designed by the Departments of Mechanical Engineering and Oral and Dental Science to study dental wear formation on human teeth.

