

EDIT

dirty money
a guide to cleaning up





Portraits of Excellence

A few of our finest. Images of the University's distinguished academics by Tricia Malley and Ross Gillespie. Page 22



Filthy Lucre

Thwarting attempts to turn drugs money into wealth. Jenny Booth reports. Page 8



A Sting in the Tale

The 100 years war against the malaria parasite is not yet won, writes Bryan Christie. Page 12



Nothing Is Bigger Than The Street

Richard Mowe talks Coronation Street Cred with producer Brian Park. Page 18



Officers and Gentlemen

James Robertson lifts the lid on 'The Island of the Scots'. Page 24



Second Sight: Fact or Fiction?

Dr Shari Cohn examines a special mental ability. Page 28



Tailpiece: The Universal Model

Professor Richard Lathe peers into the future. Page 34



NEWS 4 OMNIANA 27 A MEAL TO REMEMBER 27 LETTERS 33

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Assistant Editors David Eccles, Richard Mellis

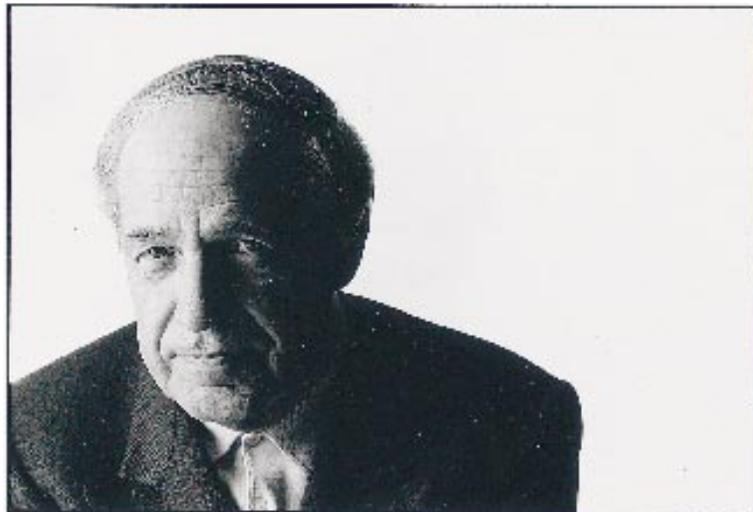
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Pierre Boulez takes the podium

THIS YEAR'S UNIVERSITY Festival Lecture by internationally renowned composer and conductor Pierre Boulez follows neatly on from last year's lecture by theatre director Peter Stein. The two have collaborated on a number of occasions, most notably on Stein's award winning production of *Pelléas et Mélisande* in 1992, and more recently in 1995 on a new production of Schoenberg's *Moses and Aaron*.

Pierre Boulez was born in 1925 in Montbrison, France. As a child he studied piano and in 1942 moved to Paris to study music. Once there he was admitted to the harmony class of Olivier Messiaen before being named as Music Director of the Renaud-Barrault Company. In 1954-55 Boulez founded the *Concerts du Petit Marigny* which were later to become the influential *Domaine Musical* series. In 1962-63 he was Visiting Professor at Harvard University. In 1974, when the French government decided to build a Music Research Centre, Boulez became its creator and director and in 1976 he was appointed Professor at the *Collège de France*. In the course of his career, he has been the principal guest conductor of the Cleveland Orchestra, Chief Conductor of the BBC Symphony Orchestra, Music Director of the New York Philharmonic and Principal Guest Conductor of the Chicago Symphony Orchestra. Pierre Boulez recently took a sabbatical year to devote time to composition and continues an active career conducting the major orchestras of Europe and the United States.

The University Festival Lecture will take place in the McEwan Hall at 2.30pm on Sunday 30 August.

Scotland as focus of world electronics industry

WORKING CLOSELY WITH Scottish Enterprise, Edinburgh, Glasgow, Heriot Watt and Strathclyde Universities have launched the world's first Institute for System Level Integration. The Institute is being developed through a unique collaboration of the four universities working with an international panel of experts and Scottish Enterprise to create a focus for both research and teaching in this emerging discipline. The Institute, which will make Scotland a world centre for next generation semiconductor research and design, is to be based in a new Design Complex being built at Livingston near Edinburgh which will include the creation of 1,895 highly skilled new jobs by Cadence Design Systems of San Jose, California, the world's leading electronic design automation software and design services company. The Institute is also committed to deliver professional development modules from 1998 and, as soon as possible thereafter, a full-length MSc course targeted at students with a first degree in Electrical Engineering or Computer Science.

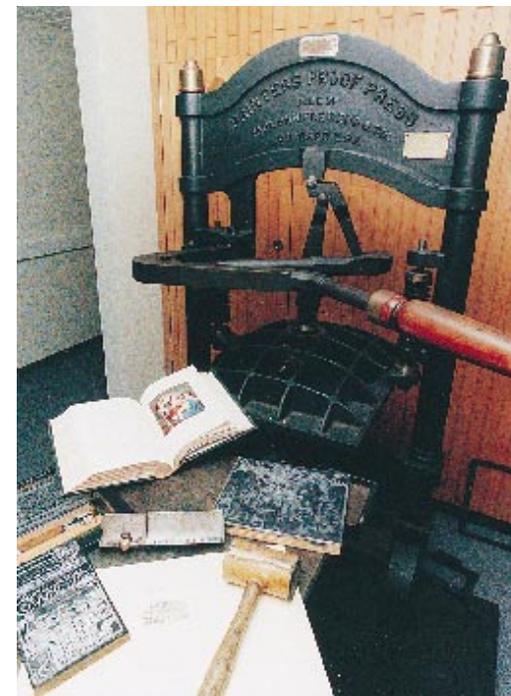
Cadence have also announced a University Scholarship programme which will award eight prizes to the top graduates in both Computer Science and Electrical Engineering at Edinburgh, Glasgow, Heriot-Watt and Strathclyde Universities. The prizes will be given either as £1,000 in cash or a one-year sponsorship of an approved Masters degree in System Level Integration at any of the four universities.

Now you see it .

• •

OF THE NINE research equipment awards totalling £1.8 million recently made by the Scottish Higher Education Funding Council to the University, the largest - £380K, with matching funding from industry taking the total to £610K - has gone to the Edinburgh Virtual Environment Centre (EdVEC) for the establishment of a National 3-Dimensional Data Capture Centre at the University's King's Buildings campus. Unique to Scotland and the UK, it will contribute substantially to the physical infrastructure for research at Edinburgh and in Scotland as a whole, and will aim to establish Scotland as a centre of excellence in the field.

The Capture Studio will help satisfy the impending huge demand for 3D models and scenes of all kinds: enabling course providers and researchers to create 3D models and virtual environments for teaching and research; supporting education, heritage and tourism by providing the means to scan objects such as museum artefacts, and reconstruct buildings, streets or cities; and supporting manufacturing by extracting Computer Aided Design models of manufactured parts. The studio will also provide facilities for motion capture to support clinical research in gait analysis, rehabilitation studies, and sports actions and injuries. Moreover, it will benefit the rapidly expanding Scottish computer games, film and advertising industries by providing the means to capture 3D motion and pursue research in generic animation and virtual studios.



Reading history

THE CENTRE FOR the History of the Book has been established within the Faculty of Arts as an interdisciplinary research centre dedicated to the study of all aspects of the production, circulation, and reception of texts, from manuscript to the electronic. Book History is a growing area of interdisciplinary enquiry, drawing on the methods of Bibliography, Social History, Literary Criticism and Cultural Theory. Its specific objects of study include literacy and reading practices, relations among publishers, authors, and readers, information networks, and media production technology. Under the direction of Bill Bell and Jonquil Bevan of the Department of English Literature, the Centre provides a research base for a number of interdisciplinary initiatives including *A History of the Book in Scotland*, four volumes of which are to be published by Edinburgh University Press. Whether in the creation of early manuscripts, in the formation of libraries, through fine printing, or the development of mass media, Scotland's contributions to the history of the book, both within the nation and beyond its boundaries, have been remarkable.

Shell celebrates with scholarships

TO MARK ITS Centenary, the Shell Transport and Trading Company has joined with the Foreign and Commonwealth Office and six leading British universities - among them Edinburgh - to establish a £10 million scholarship fund providing awards for students from developing countries to attend one year taught Masters courses in the UK. The first of upwards of 50 scholars will begin their postgraduate studies in October 1998.

The scholarships will enable five students in the Faculty of Science and Engineering, and three students in the Faculty of Social Sciences to take up studies in areas relevant to Shell's own fields of operations, and will cover tuition fees and living expenses.

The wide range of excellent taught courses in highly rated departments within both Faculties, along with the fact that the University has already published a Code of Practice for taught Masters Degrees and has in place review systems for all Masters courses, ensured Edinburgh's place - along with Cambridge, Durham, Imperial College London, Oxford and University College London - among the six universities selected.



Easy access

THE DISABILITY OFFICE, now in newly refurbished premises at 3 South College Street, will provide easy access for prospective students and members of the public who wish to enquire about facilities for disabled students, and for current students seeking advice and support. The accommodation is all on one level and is fully accessible to wheelchair users; good lighting and colour contrasting have been used with a view to ensuring that visually impaired people can find their way around; and the reception desk is equipped with a mini loop and minicom for the deaf and hard of hearing.

The number of undergraduate students declaring a disability on their application form is again up this year at 656 compared with 209 in 1994. Of these, the largest category is that of an unseen disability (303), followed by dyslexia (233); there are 12 with mobility difficulties, 20 with a hearing impairment and 18 with a visual impairment.

The office will help the University achieve its stated aim of creating 'an environment which enables students with disabilities to participate in the mainstream of university life'.



Liddell returns

A STATUE OF the Olympic athlete and Edinburgh University graduate Eric Liddell was unveiled recently in the University's Old College in the presence of his daughter, Mrs Patricia Russell of Canada (left), and the Principal of the University, Professor Sir Stewart Sutherland.

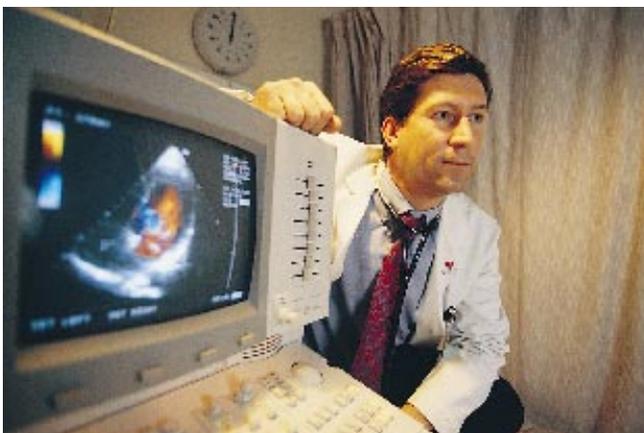
In the 1924 Paris Olympics, Eric Liddell famously refused to run in the heats of the 100 metres being held on a Sunday. He went on to win the Bronze medal in the 200 metres, and the Gold medal in the 400 metres in a new world and Olympic record time of 47.6 seconds. Eric Liddell's Olympic medals were presented to the University by Mrs Russell in 1992. The bronze statue is by the sculptor Lesley Pover (right).

£11million from the Wellcome Trust

THE MEDICAL RESEARCH charity the Wellcome Trust has made two separate awards to the University totalling some £11 million. Both will consolidate Edinburgh's position as one of the world's leading centres for clinical research into the diagnosis and treatment of some of the most common diseases affecting the population at large and Scotland in particular.

Edinburgh has been chosen as one of two sites to take part in a major new cardiovascular research initiative funded by the Wellcome Trust. The University has been awarded up to £1 million each year for 7 years for research into the fundamental causes of heart disease and the training of academic clinicians specialising in the circulation and the heart.

Edinburgh is also to receive some £4 million under the Wellcome Trust's Millennial Awards for Clinical Research Facilities. Set up to commemorate the end of the 20th century, the award to Edinburgh will allow the University's Medical School, the Western General Hospital, the Royal Infirmary of Edinburgh and Edinburgh Healthcare NHS Trust to build and run facilities for clinical research into such diseases as cardiovascular disease, diabetes, stroke illness and cancer.



Bursaries for the brightest and the best

THE PRINCIPAL, Professor Sir Stewart Sutherland, and the Rector, John Colquhoun, recently launched the University's new Bursaries Scheme, one of the most extensive ever of its kind to be initiated in Scotland.

With financial support from former Edinburgh students via its Development Trust, the University has decided to introduce the range of new Bursaries, each worth £1,000 a year, to encourage able potential students from schools and colleges across Scotland to continue their education through first degree studies at Edinburgh.

Fifty Bursaries will be offered each year: 25 Open Bursaries, to be awarded on the basis of academic merit to students from schools and colleges across Scotland; and 25 Access Bursaries to be awarded to students from state-funded schools and colleges within the University's locality whose personal and financial circumstances might prevent them from pursuing their studies. The first series for both schemes will begin for those applying to enter the University for a first degree course in October 1998.

Filthy lucre®



money for drugs. Drugs crime fills our prisons and employs our police, paid for by our taxes. Drugs money in Britain finances and feeds other forms of domestic and overseas crime. It filters into the legitimate economy and distorts it, particularly in the South-east of England, and cheats the Treasury of tax revenue. The huge profits from drugs represent a dirty tide that washes through our financial institutions - the City of London is the money laundering capital of Europe. And our government forks out taxpayers' money on overseas aid to combat the effects of the drugs trade on other countries.

SO FAR ACTION against the drugs trade has mainly been targeted at the drugs themselves. In 1961 and again in 1988 certain narcotics were declared illegal by UN conventions signed by hundreds of countries, and a policy of policing and enforcement put in place, trying to prevent drugs from being produced, intercept them in transit and arrest dealers and buyers. Domestically this has gone hand in hand with a social education policy to "Just Say No", and heavy legal punishments.

But the direct war on drugs has been an expensive failure. The volume of drugs trafficked has continued to bloat every year, the profits made by the criminal have swelled - and the number of UK teenagers who try illegal drugs has risen above 50 per cent.

So in the last decade a new international approach has been tried. This is to target the dirty money which drugs generate, intercepting profits as they are laundered clean of the drugs taint. The principle is simple. Criminals deal in drugs because it is very profitable, but may be deterred if they fear the proceeds of their crime will be tracked and confiscated.

It is not long since private planes carrying bags of money used to circle through the blue sky to land on a small tropical isle whose sole amenities were a runway with a bank at the end of it.

Under pressure from America, the EU and the OECD, more and more countries are passing laws that enable the police and the courts to confiscate money or property they believe to be the proceeds of crime. The Canadian government now owns and runs a ski resort. In America, the Drug Enforcement Agency is partly financed by the drugs profits it seizes, adding an extra incentive to agents on the trail of a trafficker in an expensive speedboat.

Targeting the cash rather than the drugs is practical, because the money will always end up with the person in charge of the drugs trade. Petty street dealers can be quickly replaced if they are arrested, but with persistence, the money trail can be tracked back to the drug barons so they can be brought to justice.

"After all, when they imprisoned Al Capone it was for tax evasion," says Bill Gilmore, Professor of International Criminal Law at the University of Edinburgh, whose book *Dirty Money* is one of the seminal texts on money laundering.

TRACING THE DIRTY money is easiest at the start, says Professor Gilmore, when the street sellers have collected in the payments from customers. The sheer physical bulk of cash is, in some cases, greater than the drugs it paid for. Somehow the banknotes have to be converted into property or financial credit, so the next phase of the laundering process can begin: of muddying the financial trail, so the money cannot be traced back to drugs, but can eventually be claimed and spent by its criminal owner.

The obvious answer is to begin by banking it, but in the last decade this loophole has been closed in many first world countries through stricter banking laws. In America all cash deposits over \$10,000 have to be reported, a law which has spawned a new criminal industry known as 'smurfing' - employing innocent-seeming individuals to deposit amounts just under \$10,000.

Britain has set no cash limit, but has placed a duty on all financial institutions to know the identity of their customers and to notify the National Criminal Intelligence Service (NCIS) of suspicious transactions. Even luxury garages are supposed to report customers who pay for a new car in cash.

The stricter laws are paying off, with 16,000 notifications to NCIS annually - four times the number six years ago. But the challenge has made criminals more inventive. Insurances have become a target, with some salesmen on commission only too happy to sell a policy paid up in full with cash. Drugs syndicates may buy businesses that generate a lot of small denomination cash, like laundrettes or car parks, and use crooked accounting to swell their legitimate profits with drugs money. In many countries a lot of drugs cash passes through casinos, where it is converted into gaming chips and returned as a banker's cheque at the end of the night.

More effective drugs operators will always tend to switch the cash abroad, where the money is less traceable and enforcement less tough. There are many offshore banking centres with conveniently strict bank secrecy laws and a lack of curiosity about their customers, ranging from the Caribbean to the Channel Islands. It is not long since private planes carrying bags of money used to circle through the blue sky to land on a small tropical isle whose sole amenities were a runway with a bank at the end of it.

But physically transporting money is old-fashioned by comparison with the possibilities offered by the international money markets, with instant electronic cash transfers worldwide.

"Less sophisticated criminals will move money around in the boots of cars and small planes, but highly sophisticated criminals will exploit the technology," says John Hamilton, former deputy director of NCIS and now Chief Constable of Fife.

"They are able to launder the money by carrying out multi-transactions across the world, in several time zones and many markets, all within minutes. It becomes more and more difficult to identify."

Switching currency is an important laundering method, although monetary union and the single European currency will close one major avenue. International fraud investigators are predicting a tidal wave of un laundered drugs money to flood through Europe's economies in the run-up to EMU in July 2002, as criminals try to offload billions of un laundered Deutschmarks and francs.

"Criminals are likely to be pulling their money out of banks and converting it into property, art and jewellery," says Chris Duggan, head of the Financial Investigation Unit of the City of London Police.

But EMU is unlikely to deter operations as huge and sophisticated as that of Colombian cocaine kingpin Rodriguez Gatcha, known to have used 82 separate accounts in 16 countries on four continents to 'layer' his drugs profits, muddying its path. Investigators admitted these were only the accounts they managed to trace.

Professional crooked accountancy operations have sprung up to control laundering for major multinational crime outfits. The financial techniques they use are little different from the creative accounting that allows legitimate multinationals to get away with paying as little tax as possible.

"My personal favourite is where you ship your money offshore and set up an offshore company," says Professor Gilmore. "Then you buy a business at home, using some legitimately earned cash but taking out a loan for the remainder from your offshore company. It transfers the funds to you, so you are now a business person, paying back the loan to the company you set up, which is helping to legitimise it and, in many countries, getting tax deductions on the payment of interest."

Threats of economic sanctions and diplomatic blacklisting have succeeded in persuading several countries, including the Seychelles, that setting up as a money laundering centre is not in their long term interests.

BUT DESPITE GROWING worldwide co-operation, the global net to catch criminals remains full of holes. In many places law is ineffectual, banks ask no questions and the economy is conducted in cash. In such countries no effort is needed to launder dirty money - it can be spent right away.

"The big questions are how to make the global strategy work more effectively in those countries which have taken it on board, and how to ensure that more countries make some effort to implement the strategy," says Professor Gilmore, who sits on a new Council of Europe task force which assesses the anti-money laundering strategies put in place in Central and Eastern Europe. "I don't think we have paid enough attention to carrots and sticks."

And as one loophole is closed, the ingenuity of the criminal will find a new way round. The latest worry involves banking experiments with smart money, where a customer is issued with a smart card he can charge up with credit, and use instead of cash to pay for goods. One can imagine how drugs barons will seize with glee on a technology that allows them to switch cash credits from one smart card to another if this can be done untraceably.

Jenny Booth is Home Affairs Correspondent of *The Scotsman*



Photo: SINCLAIR STAMMERS/SCIENCE PHOTO LIBRARY

The news that one of the great medical mysteries of all time had been solved was greeted with rapturous acclaim by doctors attending the British Medical Association's annual conference in Edinburgh. The year was 1898 and they were celebrating the discovery of the cause of malaria. But, as BRYAN CHRISTIE explains, the problems facing today's researchers seem insurmountable.



a sting in the tale

*I know this little thing
A myriad men may save.
O Death, where is thy sting?
Thy Victory, O Grave?*

THE EARLY CLINICAL manifestations and complications of the disease were described as early as the 5th century BC by Hippocrates but it was not until the late 19th century that the role of the mosquito in transmitting the world's most serious infectious disease became clear. The link was made by a Scots doctor, Sir Ronald Ross, who was working for the Indian medical service. In 1897, he located parasites in the stomach wall of mosquitoes which had previously fed on a patient with malaria. The following year he charted the complete life cycle of the parasite through its different stages in the stomach, to the mosquito's proboscis, and then into its injected saliva. For the first time in the history of mankind, a foundation had been laid to help combat a disease which had contributed to the decline of great civilisations and been responsible for untold misery and suffering. It also brought Ross the Nobel prize in 1902.

This year, scientists will gather in Edinburgh to mark the centenary of Ross's achievement but the mood is likely to be less celebratory than the famous meeting of 1898. Today, malaria is still a major killer and is responsible for the deaths of between 1.5 and 2.7 million people a year, most of them young children in Africa. It is increasing in prevalence and extending its geographical boundaries. If that was not worrying enough, there is growing resistance of the parasite to anti-malarial drugs, including multi-drug resistance in several countries. Control of the carrier mosquitoes has also become more difficult because of insecticide resistance and man-made

Ten years ago there was a good deal more optimism ... now anyone who says we are going to have a vaccine in three to four years' time is talking through their hat

bright molecular biologists came into this field and there was an assumption that, once we understood the basic biology, something like a vaccine would be just around the corner. Now anyone who says we are going to have a vaccine in three to four years' time is talking through their hat."

THE REASON for the uncertainty is that scientists have discovered that the story of malaria is far more complex than Ross could ever have imagined when he carried out his experiments a century ago. The University of Edinburgh is one of the main centres in the UK working on research into malaria and Professor Walliker's team is concerned chiefly with the genetics of the parasite. It is the knowledge gained in the past decade about the genetic diversity of the disease-causing parasite which has dampened down the earlier optimism of finding a quick solution to this ancient problem.

The mosquitoes pass parasites from one person to another by picking them up in the blood from an infected person and,

problems such as changing agricultural practices, wars and refugee movements.

Professor David Walliker of the University of Edinburgh's Institute of Cell, Animal and Population Biology who is organising the September meeting says it is taking place at a time of uncertainty for researchers working on malaria. "I would say that ten years ago there was a good deal more optimism than now.

At that time, some very

subsequently, after a period of development, injecting them into another. There are different forms of the parasite, only some of which develop inside the mosquito. These are the sexual forms and, when they come from different parasites, they provide the opportunity for new strains to develop. "The analogy with parents and children is not a bad one here," says Professor Walliker. "Children are identical to their mother and father in that they have their mother's and father's genes. However, as we all know, all the different combinations of genes produce children who look quite different from each other and their parents. The parasites going into mosquitoes are like parents - the parasites coming out are like children."

In some parts of sub-Saharan Africa people can be bitten by up to 10 infected mosquitoes a night and most people are infected with mixtures of five or six different types of parasite which are changing constantly as they are taken up by mosquitoes. "If you think of the opportunities here for the generation of new strains - it is just happening on a colossal scale. We are dealing with a genetically very sophisticated and very complicated organism which, every time it goes through mosquitoes, has the capability of producing new strains."

On top of this, people living in endemic areas are being constantly reinfected, which presents another major challenge in the on-going attempts to develop an effective vaccine. The classic diseases which vaccines have worked against - diphtheria, polio and smallpox among others - involve an immune reaction to a single dose of infection which produces a life-long immunity. "Malaria is not like that at all because people are constantly reinfected,

Malaria is still a major killer and is responsible for the deaths of between 1.5 and 2.7 million people a year, most of them young children in Africa

and may suffer clinical symptoms with each new infection," says Professor Walliker. "To try to develop a vaccine to eradicate malaria seems to me to be an impossibility. However there is possibly mileage in a vaccine to protect people in the short term."

Professor Walliker's team is one of a number at the University trying to tackle the problem of malaria. Dr Richard Carter has pioneered the idea of developing vaccines which attack the problem through the mosquito. It involves vaccinating people who already have malaria with a protein designed to attack the parasite when it is sucked up by the mosquito. Instead of multiplying in the mosquito, the parasite would be killed off. The idea is to break the life cycle of the parasite inside the mosquito and prevent the disease being passed on. Dr Eleanor Riley and Dr Jana McBride are also studying the immune responses which are triggered by different forms of the parasite.

Professor Walliker's focus is trying to understand more about the genetics of the parasite in the hope of improving the effectiveness of drugs, as well as developing diagnostic tests to allow treatment to be better targeted. Mutant forms of the parasite, resistant to certain drugs, are being produced in the laboratory to try to identify the genes involved. In addition, it is hoped the work will shed further light on how the interplay of different genes contributes to drug resistance.

Such knowledge could prove crucial in knowing which drugs to use in particular areas and when to use them. Professor Walliker explains that parasites which are resistant to drugs may be less fit than other strains and withdrawing drugs for short periods could allow the other drug-sensitive strains to dominate. Reintroducing the drugs later would prove to be more effective. "This is something that we don't know at the moment, but it's what the science of genetics is all about."

ONE BENEFIT which has already emerged from the improved understanding of the genetics of the parasite is a sophisticated form of polymerase chain reaction (PCR) testing which can reveal which types of parasite people have been infected with. As

information about the genes responsible for drug resistance is obtained, this type of test will become invaluable for doctors who will be able to see immediately which drugs would be the most appropriate. "This is really one of the most important applications of this sort of research - to come up with diagnostic tools which will allow therapy to be tailored appropriately,"

tuberculosis \$13.

BUT PROFESSOR WALLIKER says it is not all gloom. "There have been successes. They have got rid of malaria in a number of countries on the periphery but dealing with it in sub-Saharan Africa is a different matter altogether."

Certainly the progress to date is less than Sir Ronald Ross and his contem-



says Professor Walliker.

However, PCR testing is expensive and the brutal reality of research and treatment into malaria is that it is hugely underfunded, given the appalling death toll associated with a disease which threatens 40 per cent of the world's population. The difficulty is that most of these people live in the developing world and the major pharmaceutical companies do not see their problems as a priority. Funding of research has been left largely to government bodies and charitable institutions. A recent report from the Wellcome Trust said: "Malaria research is under-funded relative to the global incidence of the disease. There is a pressing need for research in the field of malaria and for the effective translation of research results into practical application." Figures which compare global research funding against the annual death toll from particular diseases highlight the plight: HIV/AIDS gets \$3274 per death; asthma \$789; malaria \$65 and

pories would have hoped for when they made the important breakthroughs at the end of the last century. Sir Ronald, who composed poetry in his spare time, penned the following lines to mark his discovery.

*This day relenting God
Hath placed within my hand
A wondrous thing; and God
Be praised. At his command,*

*Seeking His secret deeds
With tears and toiling breath,
I find thy cunning seeds,
O million-murdering Death.*

*I know this little thing
A myriad men may save.
O Death, where is thy sting?
Thy Victory, O Grave?*

Sadly the sting remains and the grave still continues to claim far too many victims of this most terrible of diseases.

Above:
Coloured scanning
electron micrograph of a
female malaria mosquito
Anopheles gambiae.
(Dr. Tony Brain/
Science Photo Library)

Main image, previous page:
Female mosquito biting
into human skin, taking
a blood meal.
(Sinclair Stammers/
Science Photo Library)

Nottingham

Is Bigger Than The Street



The man in charge of Coronation Street regards himself as the guardian of a national treasure: BRIAN PARK tells Richard Mowe how he made the journey from Edinburgh to the helm of Britain's longest-running and most popular soap.



"It is like being in the bowels of the Titanic, shovelling in the coal, and hoping that unlike the Titanic it does not hit the iceberg that is called public indifference."

THE IRON STREET sign pinned above the door to the office suite in the heart of Granada-land (otherwise known as Manchester) proclaims unambiguously Coronation Street. The inner sanctum is dominated by life-size photographs of Stan and Hilda Ogden beneath which resides a black and white sofa (or could it be the casting couch?). Scattered around are scale models of such memorabilia as the Rover's Return.

It's all rather casual and chummy: but make no mistake about it, this is the throbbing heart of a multi-million industry whose output of four shows a week must rival the production line of the dream factory in its heyday, when writers were cooped up in rooms like so many battery hens, and performers kept on a tight leash.

The current heir of what has become a peculiarly British institution, whose characters are accorded the same reverence once reserved for Royalty, is Brian Park who has been the Street's producer for the last 12 months.

Without over-egging the drama, he was brought in to breathe much needed new life to a series that had become becalmed in the doldrums while such upstarts as EastEnders, Brookside, Family Affairs and Hollyoaks made predatory raids on its loyal viewers.

Park, 43, a fair-haired, tightly coiled bundle of energy dressed in shades of black courtesy of Armani jeans, was only too aware of the enormity of the task before

him. "Soaps by their nature are fairly conservative beasts which bank on a degree of familiarity as much as anything. You tune in at a familiar time of the day to see familiar characters doing familiar things in familiar settings. The Street has been going on so long - this is its 38th year - that it has to be the most conservative of them all. My predecessor had done three years and on a show like this, that knackers anyone. It had become slightly complacent ... we were chugging along in third gear, and I wanted to move into fifth."

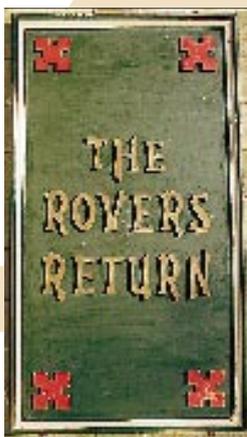
His baptism was anything but peaceful. He was likened to screen axeman Freddy Kruger and portrayed as a monster who was solely bent on chopping some of the

Street's best loved characters, among them Dopey Derek, Don Brennan, Bill Webster, Maureen Holdsworth, and Andy McDonald, while also reviewing the performance of the pool of more than a dozen scriptwriters. The shake-up was swift, sure and controversial yet he had no doubts about the precise purpose of his mission.

"Any new producer who comes in is going to have to kick ass and turn things over. I wasn't hired to preserve continuity. There had been several decisions pending that I had to sort out. There was no point in making changes gradually ... you have to go in and move quickly. The profile was skewed to the 55 plus age group, and in



"You cannot take your eye off it for a second. You have to drive and push constantly. The public will not accept crap; they know when something is lazy."



the days before a multi-channelled and multi-soap environment, it was the show you watched with your mother. We have made significant inroads into the 16 to 24 year olds which from an advertising point of view is crucial," he says.

He admits that the curse of being a Coronation Street producer is that every punter can see themselves in the hot seat, firmly believing they have a better handle on any changes to be made. "You have to have broad shoulders and a thick skin," he says, flashing a cherubic grin.

Park began to acquire such an armoury when, in 1972, he came to the University of Edinburgh aged 17 from his home town, Aberdeen. He graduated in history and psychology. He describes the varsity experience as "a grand finishing school" which may not have directly prepared him for the rigours of television but allowed him to "question, intermingle, adapt, and perform". A significant influence was his history tutor Owen Dudley Edwards, who advised him to follow in the wake of another Edinburgh graduate Steve Morrison, now Granada Television Chief Operating Officer.

"At the time I just wanted to be a dilettante. It was the fading days of Afghan coats and loon pants, and student rent strikes. Gordon Brown was Rector. I started a PhD but decided after about six months to skip it. I realised that I was just putting off the evil day when you had to get a proper job. To this day my parents don't think this is a real job ... maybe I should have been a lawyer or an accountant," he jokes.

HE ARRIVED AT Granada as "a fairly green graduate" to take up a post as promotional script writer, devising and editing trailers, dreaming up pithy one liners and cutting in the film excerpts to publicise upcoming programmes. He is grateful to have had a taste of television before deregulation. "Then Mrs Thatcher turned her beady eyes on the last bastion of restrictive practices. I suppose it was the end of the glory days of television and the Thomsonian licence to print money. Good came out of it, as well as slack practices. What has gone on since is still exciting. Companies have to perform and deliver to their shareholders, and if they rest on their laurels, they will be taken over or pushed aside. I would rather be with Granada as a shark, than as a minnow with someone else," he says.

The demands of the Street are all consuming. He spends his week in Manchester almost overlooking the shop and the studio tours but regards London as home. He's single - long-term relationships, you suspect, would have fierce competition with the job. "You cannot take your eye off it for a second. You have to drive and push constantly. The public will not accept crap; they know when something is lazy. The ideal is that people will come in to their work place, and start talking about what they saw on Coronation Street last night. To think that they will watch it because of familiarity with those characters is living in cloud cuckoo land."

Apart from a brief sortie to Tyne Tees television, he has remained faithful to Granada, partly because of the range of opportunities he has been afforded. "I've done everything from being head of entertainment, working on chat shows, news shows, political shows, and I was two years in the Middle East. But my main inclinations are towards drama - and I was involved as producer on September Song, Prime Suspect and True Love."

His earliest memories stretch back to watching the Street with his grandmother in Arbroath. It was part of his youth and coming of age. He was determined to avoid being subsumed by the history and the tradition. "When it started off it was almost Osbournean kitchen sink drama, gritty and socially realistic, addressing issues which were ground breaking for mass television. Ken Barlow originally was an angry young man, university graduate, into left wing politics, who was slightly despised. Stan's background was that he had been a serial adulterer in the war ... and Hilda talked about him cracking her about the face, so she was a battered wife, and yet they end up by being cosy comic caricatures. So we brought in the dysfunctional Battersbys, the neighbours from hell, who are in your face. Then as their stories unfold they become part of the fabric - they become part of the Street, and the Street comes to them."

The tough decisions facing him at the outset could not have been easy to execute. "You want to know how I can sleep at nights? Well, you have to take a basic line which is about what is good for the programme. Ultimately, it cannot be seen as a pension fund for actors."

He has had to become adept at handling the tabloids for whom the toings and froings of TV soaps represent part of their lifeblood. He appreciates their requirements, preferring to live in an atmosphere of mutual benefit as opposed to antagonism. "They need us, and we have to live with them. I'm fairly happy with it. If you don't deal with them, they are still going to be there anyway," he says pragmatically.

He will harbour mixed feelings at the eventual end of his stewardship. The relentless pace would sink lesser mortals - the production process continues six days a week, 52 weeks of the year. "On other dramas there is pre-production, post-production and you have a wonderful phase called downtime when you are allowed to have deep thoughts. On the Street, it is like being in the bowels of the Titanic, shovelling in the coal, and hoping that unlike the Titanic it does not hit the iceberg that is called public indifference.

"When I first took over there were a lot of Jeremiahs awaiting its decline and fall. They said it was past its prime, out of kilter with the age, and had run its course. I was determined to prove them wrong. I think we have. Actors, writers, and, dare I say it, producers come and go, but nothing is bigger than the Street."

Brian Park graduated from the University of Edinburgh BSc in 1976 and MA in 1978.

Richard Mowe is a freelance journalist.



PORTRAITS *of* EXCELLENCE

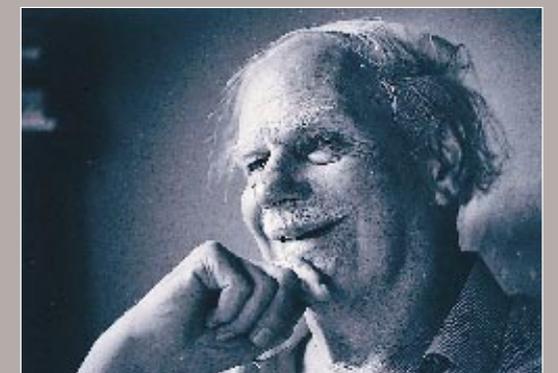
photographs by Tricia Malley and Ross Gillespie

A PORTRAIT of Professor John Erickson by University photographers Tricia Malley and Ross Gillespie in a previous issue of *Edit* has given rise to an exhibition and a catalogue comprising 26 images of distinguished academics at the University of Edinburgh. The impetus for the series came from Vice-Principal, Professor Colin Bell, and was inspired by the fine collection of portraits of academic staff which the University commissioned in the 18th century from Sir Henry Raeburn.

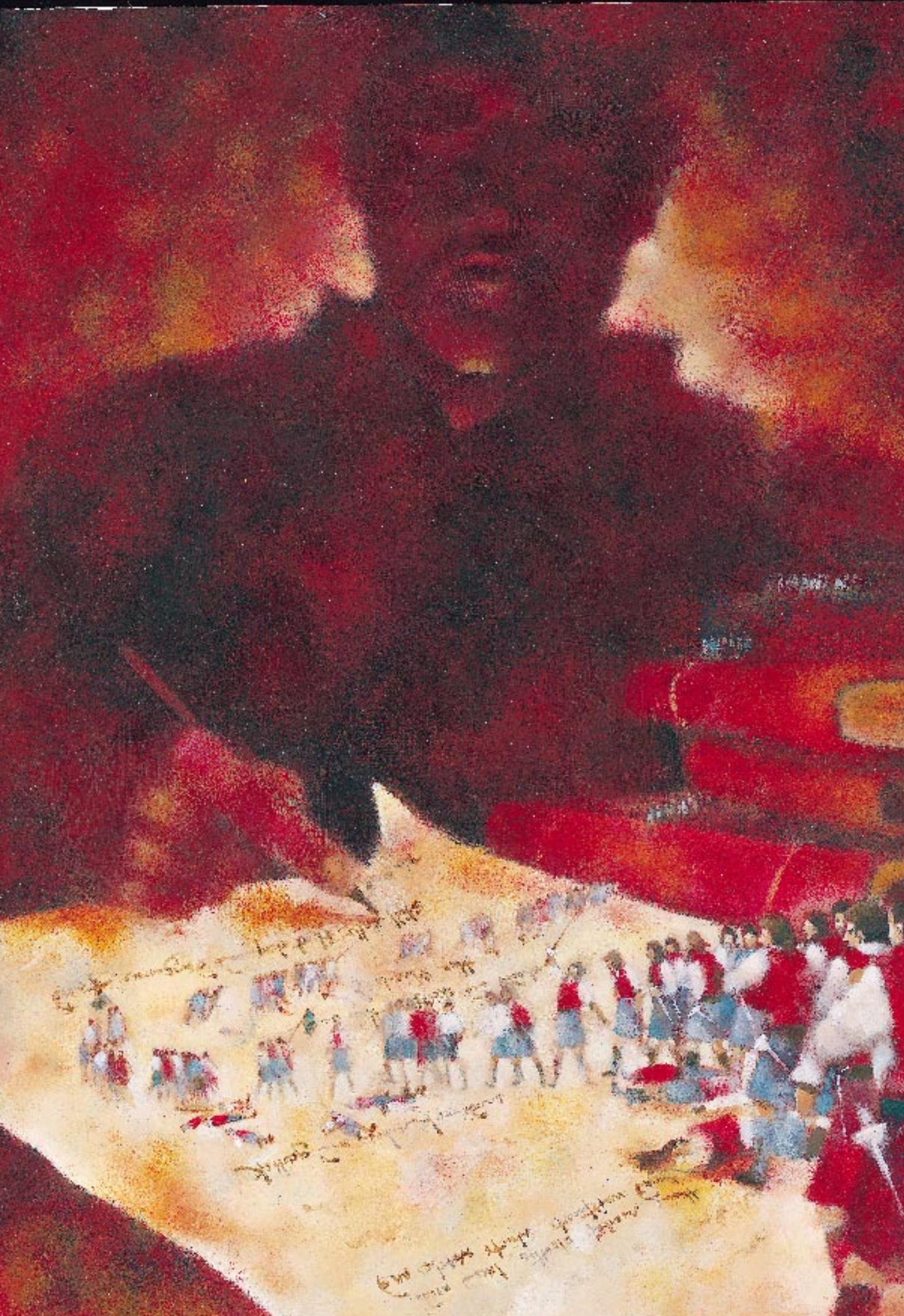
The photographic collection, which was on display at the Scottish National Portrait Gallery in Edinburgh during December 1997 and January 1998, conveys the diversity of the subjects' academic interests and reflects the personality of the individuals. As Vice-Principal Bell explains in the Foreword to the catalogue: "Here are a series of images and settings that capture a time that is passing. This small volume commemorates memorable scholars and teachers and administrators who research and tell following generations of

our exceptional students what is important (and what is not). No diffidence here - proud, confident even, the survivors of the contemptuously imposed 'efficiency gains' look at the camera directly. ... What do we say? Come to universities like ours. Support universities like ours. Learn with us, be taught by us. Excellence here is not a cliché."

The Scottish National Portrait Gallery has retained a complete set of the images for its permanent collection. They will be exhibited within the University. For details of how to purchase a copy of the catalogue, see page 32.



opposite: Sarah Cunningham-Burley, Public Health Sciences
 this page (clockwise from top right):
 Michael Fourman, Informatics
 David Marshall, Business Studies
 Hamish Henderson, Scottish Studies
 Colin Bell, Sociology
 Veronica van Heyningen, Human Genetics
 Simon van Heyningen, Biology



“Gentlemen are gentlemen, and will always show themselves such in time of need and danger.”

O fficers & gentlemen

Thanks to a past Professor of Rhetoric and Belles Lettres at the University of Edinburgh, JAMES ROBERTSON has been able to retrace the adventures in Europe of a band of gentlemen soldiers who fought for the Jacobite cause under Viscount ‘Bonnie’ Dundee, only to see him fatally shot at Killiecrankie in 1689. Later, they followed their exiled Stuart king, James VII and II, to France. To earn their keep, they soldiered for Louis XIV.

Illustration by FIONA STEWART

*“THE PEASANT, as he sees the stream
In winter rolling by,
And foaming o’er its channel-bed,
Between him and the spot
Won by the warriors of the sword,
Stills calls that deep and dangerous ford
The Passage of the Scot.”*

These are the final lines from a ballad, ‘The Island of the Scots’ by William Edmondstoune Aytoun, who occupied the Chair of Rhetoric and Belles Lettres in the middle of last century. It is a highly romantic version of an heroic deed-of-arms by the exiles three hundred years ago in the last stages of the War of the Grand Alliance, in which France was confronted by Britain, Austria, Spain and Holland.

Aytoun’s description of the episode in his ‘Lays of the Scottish Cavaliers’ is a sanitised, death-and-glory one. It celebrates the bravery of the Scots mercenaries in that single action, but tells nothing of their many, earlier misfortunes - not all of them due to the official enemy.

The acknowledged source of his inspiration, however, is a different matter. ‘An Account of Dundee’s Officers After They went to France’, published in London in 1714 and held in the National Library of Scotland, is the work of a man who tells it as it was, warts and all - and names the warts. Perhaps partly because of that, he preferred to remain anonymous, as ‘An Officer of the Army’. His Jacobite sympathies could have been another reason for concealing his identity. At the time of publication the 1715 Rising was being plotted.

Aytoun himself draws the conclusion in a foreword to his ballad that the narrator of the unexpurgated ‘Account’ was a survivor of the Scottish corps. And the detailed nature of his tale suggests that his is no second-hand report. His criticisms of individuals over the deprivation suffered by the band also seem supportive of the conclusion that he was writing from bitter experience.

The ‘Account’ tells how, in September 1692, King James “condescended” to allow the exiles

to form a company as part of Louis’ army. They wanted the Earl of Dunfermline - “a gentleman whose loyalty, like his honour, admitted no rivalry” - in command. Sadly, as it turns out, James preferred to retain the Earl’s services at his court-in-exile. He appointed Col. Thomas Brown as their captain, with Cols. Alexander Gordon and Andrew Scot as lieutenants, and Major James Buchan as ensign.

The author points the finger early in his report. “I am heartily sorry those gentlemen have given me no opportunity of speaking well of them”, he writes. “It was their ill conduct, particularly Brown’s avarice, that ruined the company; for they got a command which they never expected, and knew as little how to use as they deserved it.”

But the grounds for his harshness are reserved for later in the ‘Account’, and he goes on to describe the scene when James addressed Brown, Gordon and Buchan and 70 of the officers in the garden of St Germain en Laye. “Write your wants particularly to me and depend upon’t always to find me your parent and King,” he told the parade. James is reported to have noted down their names in a pocket book and “hat in hand, made them a bow”.

ONE MONTH LATER, Brown and Scot marched 50 men south on a 900-mile journey to Perpignan. This little “foreign legion” appear to have made a fine impression in towns and villages they touched. “Usually, the young ladies in the town were walking on the parade to see them,” the war correspondent writes. However, we learn no more, at this stage, of the Scots’ fraternisation with the locals.

But by the time they arrived at Canet, where they were equipped, the company had spent all their money and were down to “French pay” - three pence a day plus one-and-a-half pounds of bread. It was too little for Dundee’s officers, who were used to “great plenty and affluence”.

At Perpignan, in November, 1692, they began selling off personal belongings - “their scarlet cloaths, laced and embroidered waistcoats, shirts, watches and rings”. But there were compensa-



“They got a command which they never expected, and knew as little how to use as they deserved it.”

tions. “The wine was cheap and their merchandise procured them money and mistresses,” the war correspondent reports.

In mid-March 1693, they met up with two other “Scotch companies” - “Major Rutherford’s Company” and “veteran troops of Dumbarton’s Regiment” under Captain John Foster. Weeks later, their days of wine and mistresses came to an end. On May 1, the combined force became part of Mareschal de Noailles’ army and marched “past the Pyrenees” for Rosas, in Catalonia, where the 50 who had walked through France together became 96 - presumably having been joined by the 20 Killiecrankie veterans who had paraded with them before James, plus others.

It was in Catalonia that the “misfortunes” really began. The Scots suffered badly from the heat, poor water and “nothing to eat but sardines, horsebeans and garlick”. Many came down with “fevers and fluxes” and two were shot dead - Major Rutherford and “the bold Captain William Ramsay”.

IN DECEMBER 1693, the Scots were on the march again, a gruelling trek across France to Silistad in Alsace. On arrival, “some officers looked like shades and skeletons rather than men”. For some reason, Brown left his men during the march - for St Germain - “without giving them a farthing to buy the necessaries”, though he had more than two months’ money for them from King James, the author relates.

In Alsace, the exhausted band “found famine”. Cheated, by Brown, Gordon, Scot and Buchan, they were again forced to market items such as silver-handed swords, snuff boxes, silver buckles and some of their clothes. “They suffered even more hardships in Alsace than in Catalonia,” he writes. By June 1694, five had died, and 14 chose to take up an invitation to return to St Germain, issued by James when he learned of his supporters’ trials. Brown’s actions were exposed at court and the money he owed dispensed.

The narrative comes to its climax - the action which so inspired Professor Aytoun - with the Scots positioned on one side of the Rhine, near Strasbourg, along with a French army under the Marquess de Sell, and German troops led by General Stirk on the other. A strategically important island had to be taken from the enemy, and the French leaders awaited the arrival of boats.

But the Scots, “who always grasped after honour”, resolved to wade across the river for a surprise attack. With Captain John Foster at their head, they tied weapons, shoes and stockings around their necks and crossed hand-in-hand - “according to the Highland fashion” - to win the island. According to the writer of the ‘Account’, the Marquess de Sell declared the deed “the bravest action that ever he saw”. Next morning, he embraced every man.

The Scots held the island for six weeks against repeated attempts to re-take it before the Germans decamped and retreated. Peace followed soon afterwards under the Treaty of Ryswick in 1697. In the negotiations, Louis recognised William III, who had supplanted James on the British throne, as rightful King. According to our anonymous war correspondent, the exploits of the Scots who’d been such a thorn in his flesh did not go unrecognised. “King William would agree to nothing until that company of officers was broke,” he wrote.

“And thus was dissolved one of the best companies that ever marched under command,” the author tells us - “Gentlemen who, in the midst of all their pressures and obscurity, never forgot they were gentlemen.” He reported in 1714: “Of that company of officers there are not 16 living.”

As for the scene of their final action, the author states: “And that island is called at present Isle d’Ecosse, and will in liklyhood bear that name until the General Conflagration.” In that, he was wrong. Inquiries to the town hall of Strasbourg about the survival of the name produced a “Non”.

But the anonymous account in the National Library and - romanticised or not - the Aytoun ballad survive as complementary tributes to the courage of Dundee’s officers after they went to France.

James Robertson is a freelance journalist.



a Meal to Remember

I WON’T FORGET in a hurry the first time I took part in a sacrificial meal with the Irula forest people of southern India. This kind of event epitomises the anthropologist’s immersion into a host culture. New fieldworkers, as I was, approach such rites of passage with all the enthusiasm of a teenager to a first all-night party, and all the naiveté of the sacrificial goat itself.

Worldwide it is not uncommon for the pre-prandials to be as important as the meal itself, and it is on these that I focus here. I stood my ground rather competently through the beheading of the goat. The priest sprinkled it with holy water while everyone waited for it to jump three times as a sign that the goddess had accepted the sacrifice. After the second jump, as the executioner’s machete was raised, I resisted the temptation to shout ‘don’t jump!’ to the

“I even volunteered to help out with the dismemberment of the goat”

goat. I didn’t waiver when required to accept a bloody tikka mark on my forehead from the priest’s gory hand. I even volunteered to help out with the dismemberment of the goat, just in case crucial details of social structure were going to be revealed to me in the division of the spoils, or cosmology elaborated in discussion of the entrails. This was not really to be the case, beyond the fact that women and children, banned from the beheading in case it gave them nightmares, joined in the dismemberment with ghoulish glee.

A young boy handed me a piece of the innards instructing me to hold tight and giving me a pot of water. He then walked twenty yards with what turned out to be the other end of the intestine I was holding. My first serious role in an Irula religious event was to put the goat’s anus to my lips and blow mouthfuls of water through the intestine until it was clean enough for chopping into scampi-esque ringpieces for the communal meal.

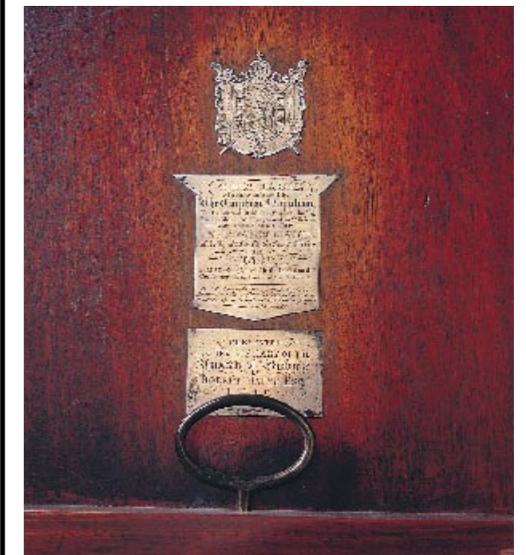
When the meal was served there was some competition among the drunker men to share my banana-leaf plate in displays of brotherhood. This pleased me, of course, as I anticipated writing ‘acceptance’ into my fieldnotes that night. But with several rivals dribbling onto my meal it was hard for me to concentrate on my chèvre orientale.

Dr Neil Thin, Department of Social Anthropology, The University of Edinburgh

Write to us with your (good or bad) memories of meals consumed as a fieldworker, tourist, dinner guest, restaurant diner, or simply a hungry person, and tell us why the memory lingers on. Details please to: The Editor, Edit, The University of Edinburgh Centre, 7-11 Nicolson Street, Edinburgh EH8 9BE

No.5

Napoleon’s Table



The Emperor Napoleon’s table is on display in the University’s Talbot Rice Gallery. The depression on the surface of the table is said to be where the frustrated former Emperor stubbed out his cigar.

**This Table
which was used by
The Emperor Napoleon
For Breakfast, Dinner & Supper
during his residence at Longwood, in St Helena,
was purchased for
Mr Robert Mayne,
of the Honourable East India Company Service
in 1822
by Mr A. Darling, Merchant in the Island and contractor for
the Longwood Establishment.**

**‘Ce n’était plus ce Prince environné de gloire
Aux combats, dès l’enfance instruit par la victoire
Dont l’Europe en tremblant regardait les progrès’**

*La Henriade**

Presented to the Library of the University of Edinburgh
by Robert Mayne Esqr
HEICS
2 March 1844

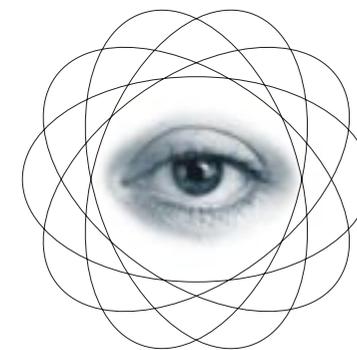
*He was no more that Monarch swathed in glory,
In battle, even but a child, mentord by victory,
Whose onward progress trembling Europe watched.
Voltaire

omniana The University’s hidden treasures



second sight: fact or fiction?

“It was absolutely natural. There was nothing unnatural, nothing frightening about it. In fact, I wasn’t aware that he was dead. I took it that he was still alive...”



As far back as the Roman era, the Celts were recorded as possessing powers of divination and second sight. The most common Gaelic expression which refers to second sight is An Dà Shealladh, which means ‘two sights’. One is the normal sight and the other is the ability to have prophetic spontaneous visions. The ability was believed to be a natural inborn faculty of mind which ran in particular families. As well as being of historical interest, second sight is, however, still being reported today in Scotland and elsewhere. Dr SHARI COHN examines the issues.

Can all second sight experiences be explained away as examples of coincidence, psychological inference or unconscious processing of information? Can some experiences be cases of communication which go beyond the known sensory means of communication? Whether second sight experiences are examples of remarkable coincidences or instances of ‘psychic’ communication, they deserve to be studied as having a transformative and meaningful effect on the lives of the people who have them. Sceptics attribute individual experiences to coincidences and the hereditary aspect to purely oral cultural transmission. If, however, the capacity to have second sight experiences is a genuine mental talent which is partly hereditary, this would challenge conventional notions about the nature of mind.

The first detailed accounts using the term ‘second sight’ in English are from investigators of the 17th century. Accounts of second sight from that period onwards are consistent with modern day accounts. The experi-

ences often concerned key events in the cycle of birth, life and death. As such, accounts of second sight became woven into the culture and oral tradition of Scotland. Since its founding in 1951, the School of Scottish Studies at the University of Edinburgh has incorporated much evidence regarding second sight in its archives of Scotland’s cultural traditions. Fieldworkers have interviewed people living in diverse parts of Scotland and North America about their second sight experiences in the context of their customs, beliefs and way of life. Care is taken to respect the informants’ wishes regarding their recordings and how they are used by the wider research community.

In my research work I have applied a multidisciplinary approach to the study of second sight, drawing from the fields of ethnology, psychology and human genetics. The study used questionnaire, interview, and family history methods to examine the prevalence of second sight, the nature of the experiences, and to see whether there is any evidence to support the belief that it is hereditary.

As there were few questionnaires on second sight - the first one being reported by John Aubrey in the 1690s and a later one, designed by the Society for Psychological Research in the 1890s, which was never completed - I had to design my own. The 65 item questionnaire covered the different types of second sight experiences found in the historical literature and modern-day accounts from the School of Scottish Studies’ Archive, as well as biographical and family history information. It was sent to people who expressed an interest in the study and, in some cases, it served as an interview schedule, especially with people living in remote areas.

A total of 208 questionnaires were received, primarily from Scotland but also from other countries. The responses indicated that second sight is experienced by people of diverse ages, occupations, religious and cultural traditions. Women tended to report more experiences than men and an important factor related to having second sight was having had a religious experience in which the person felt at one with

God or Nature. Nevertheless, second sight was also reported among those who were agnostics or atheists.

Fieldwork was conducted in different parts of Scotland over several years. Seventy people were interviewed and over 500 accounts were collected. I interviewed people who had either filled out the questionnaire or who were recommended by members of the School of Scottish Studies. Through word-of-mouth, I was referred to other people to interview. I visited people in their homes and spent time building a rapport with them as the material they were giving me was intimate and, in many cases, had never been recorded before. During the interview, the person was questioned in a sensitive manner about the circumstances of the experiences in an attempt to find possible explanations.

The interview material was analysed with both a profile approach and a pattern approach. Profiles of five informants gave an insight into the range and circumstances of the experiences, the context of family attitudes toward discussing second sight and their



The visions need not be exclusively visual:
they can be expressed through the other senses as well.

religious and personal views. The families regarded second sight as being both a spiritual and physical phenomenon. From the person's own experiences and religious beliefs, there was a deep belief in fate, that what was seen would happen, and that one could generally not intervene unless one had a strong conviction to do so. Also there was a belief, sometimes based upon personal experience of seeing a loved one after death, that when a person dies, some part of them, a soul, continues. In some families with second sight, it was openly discussed and believed to be a hereditary 'gift'. In other families, the subject was taboo. Yet despite this, it still ran in these families.

To complement the profile approach, a phenomenological approach was applied to looking at patterns in the complete set of accounts. Second sight touches upon all facets of human experience, though the experiences mostly concern tragic events. Some of the more classical types of second sight experiences reflect the burial customs of the time and can be expressed in various forms of imagery. One type of experience can take the form of a direct representation of a person's fate, as in the case of a person seeing a funeral procession. While most of the older accounts concern a person walking at night when they encounter a funeral procession, contemporary accounts are expressed in a modern context. For instance in a recent case in the Highlands, a man had a vision of a funeral procession

whilst driving his bus; by recognising the mourners, he named the person who would die, in front of the passengers. Other classical types of experiences can take the form of a symbolic representation of a person's fate, such as seeing a death shroud on a person before the person dies. In all such cases, people report seeing the shroud not "in their mind's eye" but on the person.

Second sight experiences also include awake visions of a person before, at the moment of, or after death. The theme of external imagery is often found. In most cases, the apparition appears solid and the percipient is unaware that the person is ill or near death. Only when the image fades does the percipient realise that something is amiss. For instance, a person from Skye had an awake vision of her neighbour whom she thought had returned from holiday in England. In her own words, she says: "...It was absolutely natural. There was nothing unnatural, nothing frightening about it. In fact, I wasn't aware that he was dead. I took it that he was still alive..." She was informed later by the neighbour's employer that he had died quite unexpectedly. Her vision of the neighbour coincided with the time of his death.

In cases of seeing an apparition of a person after death, the percipients reported in most cases that it appeared as a solid person. They did not feel that they mentally projected the image of the apparition but that it had an existence of its own. The percipients felt that the apparition came to them

In some families with second sight, it was openly discussed and believed to be a hereditary 'gift'. In other families, the subject was taboo.

for a purpose, to bring comfort, impart information about a loved one, or to give information about an unresolved matter.

The visions need not be exclusively visual: they can be expressed through the other senses as well. For example, a brother and sister heard the mournful crying of a woman, the crackling of fire, and people talking quite close to their house. Several months afterwards, a young child was trapped in a caravanette which went on fire, and his mother was crying there when the body was found.

People experience second sight across a spectrum of states of mind. They are usually experienced as a spontaneous awake vision when the person is in the midst of everyday activities and is not intending to have an experience. Second sight can also be experienced in a hypnagogic or in a dream state. These experiences often have a psychological impact on a person's life, as illustrated by one informant from Lewis, who said they made him "more aware of people, more aware of the fragile nature of life, the fragile nature of the mind even...". Most people regard it as a natural part of themselves, as one informant from Harris illustrates: "Second sight in my culture is like fresh air and water, it is just there." Even so, some people felt it was an unwanted 'gift' and were burdened by what they saw as it posed an ethical dilemma over whether to tell the person concerned. For many, it was also the fear of ridicule or ostracism, as one informant from Skye put it, "...after a while, you get to the stage, where you don't tell people about it any case because when you do tell people, very often, you

are laughed at. Even if the thing does happen there is a huge amount of scepticism."

The phenomenology of second sight suggests that information about an emotionally charged event is conveyed through a whole range of sensory modalities - visual, auditory, kinaesthetic or olfactory - and the experiences are described by the percipient as being real. Some of the visions were seen as quick 'film-like' images through the mind and they did not disrupt what the person was doing at the time. Other visions appeared as projected three-dimensional images which became the central focus of perception and in those cases, the percipient's normal vision was disrupted. People with external visions may have an eidetic-like imagery, where the image is clearly seen before the eyes. This is currently being explored in more detail.

To find the frequency of second sight in the general population, a large-scale mail survey using random sampling methods was undertaken in different areas of Scotland. Second sight is generally regarded as being more prominent in the Western Isles and Highlands of Scotland than elsewhere. However, the survey data shows this not to be the case - the phenomenon occurs in all areas of Scotland. Nor was having a family background from the Highlands and Western Isles a strong predictor of having second sight. Throughout Scotland, people who reported having second sight were significantly more likely to report second sight in blood-related family members. This gives empirical support to the traditional belief that second sight does run in families.



Having demonstrated the existence of this familial clustering effect, the next question is whether this is due to cultural and/or genetic factors. To explore this, a total of 130 pedigrees from people with a history of second sight in their family were constructed and analysed for known inheritance patterns in consultation with Professor Elof Carlson, a geneticist from Stony Brook University, USA. The results of the genetic analyses demonstrate that second sight seems consistent with a particular mode of inheritance pattern, especially for small family sizes. Though certain aspects of the data favoured a social and cultural model, this does not necessarily rule out an underlying genetic component.

This, in turn, raises the question whether the hereditary

aspect of the ability lies in the sensitivity of the normal sensory systems which convey the experiences. Currently, I am examining the relationship between second sight and other mental and artistic abilities. Some research has shown a possible relationship between creativity and extra-sensory perception. Through interviewing musicians, painters and poets, the aim is to examine the social and cultural factors which may have influenced them in becoming artists and to see whether they have had second sight experiences. Also, to see whether these artistic abilities might be hereditary, family pedigrees will be constructed, analysed for possible inheritance patterns, and then compared to the inheritance patterns observed for second sight. If the inheritance patterns are similar, this would suggest that second sight is related to a creative mental process and what may be hereditary is the way sensory information is processed.

At the turn of a new millennium, second sight experiences continue to pose fundamental questions about the nature of mind. Accounts today may differ little from those of the 17th century, but today's interdisciplinary approach to research, combining neuroscientific, psychological, historical, cultural and social knowledge, is bringing us closer to understanding the mind and its exceptional abilities.

Dr Shari A. Cohn is a Postdoctoral Research Fellow at the School of Scottish Studies and has been awarded a grant from the Institut für Grenzgebiete der Psychologie und Psychohygiene, Freiburg, Germany. Her PhD thesis is entitled, The Scottish Tradition of Second Sight and Other Psychic Experiences in Families.



Letters

Readers' letters are welcome and should be addressed to the Editor. Here is a selection of the responses to Issue 13.

THE WALLACE LIQUEUR PRIZE LETTER

Carrots (help you see in the dark)

"EDINBURGH STUDENTS in 30 years' time will still be very bright. They will be pretty self-confident because they will have had to be to survive. They'll have a range of skills we can't dream of because that's the way technology is moving. Some more will be based at home, they will have debts, and they will persuade employers who want to employ them to pay off those debts quite significantly." (*Professor Sir Stewart Sutherland, 2020 Vision, Edit, Issue 13*)

Graduate intake is not confined to the long established corporate businesses with sophisticated recruitment programmes, but encompasses new and developing companies, not forgetting those bold 'go it alone individuals'. These businesses will be experiencing all the growing pains... strained cashflows, staff recruitment, training etc. There is the very real possibility that the newly recruited and in-house trained bright young graduate may then be lured away by the more affluent predator.

Professor Sir Stewart Sutherland's suggestion that the graduates should innovatively "persuade employers... to pay off those debts quite significantly" is, I think, a negative approach to the problem of fee payment, and should not be the policy of a progressive thinking university or government.

I would argue that these new and developing businesses are the life blood of our economy and need all the assistance they can get. Their efforts are far better concentrated on developing their businesses rather than finding methods of funding university tuition fees.

There are kick start/primer schemes currently in place to encourage firms who might otherwise have gone for a safer but less enterprising option than to recruit a fresh graduate. Why nullify this benefit? Our overseas competitors are aided by direct approaches from their governments who go much further in promoting graduate skills, getting them to the heart of the business market.

Yes, work-hungry graduates from collaborating, progressive universities which are continuously evaluating their position in relation to the nation's needs are essential, but this is not the way. Graduates and businesses need incentives not disincentives. Would I suggest a daily helping of *Daucus Carota* to achieve 2020 vision? Or is that just another smokescreen?

JOHN M. MARSHALL, BSC 1972
AUCHTERMUCHTY, FIFE

Not in my car

THE ARTICLE by Fiona McLeod talks about a proposed car sharing scheme in Edinburgh. Large companies here have not had much success encouraging employees to car pool. There are many reasons for not wanting to share the car, but one that I experienced was mainly because of personality clashes.

I was one of four people who took turns driving 45 minutes to work. Member No. 1 was always late. He would come to his front door putting on his jacket while trying to drink coffee and light a cigarette. His political views were to the left.

Member No. 2 opened his front door exactly on schedule. He drove like a maniac, taking shortcuts up alleys. His political views were to the extreme right and he had strong religious beliefs. No one was allowed to smoke in his car.

Member No. 3 was always outside walking up and down smoking a cigarette. He was from one of the southern states and was really prejudiced against minorities, especially blacks.

I was Member No. 4 and, being a Scotsman from Glasgow, I was the only normal one.

ANDREW BAIRDEN,
TORRANCE, CALIFORNIA

That's better!

I REMEMBER, after receiving my first magazine from Edinburgh University, being moved to write to say what a fussy, irritating read it was, much of the text being partially obscured by obtrusive graphic gimmicks.

I am now moved to write again, after reading Issue 13, Winter 1997/98, to say what a great improvement you have achieved. The layout is straightforward, yet not dull. The interesting articles are not invaded by graphic intrusions.

No doubt you will be keeping us informed on how the city returns to capital status, when presumably the term Britain will be confined to past history. In Rubens' ceiling in the Banqueting Hall in Whitehall, the infant Britain appears after the birth of England & Scotland!

DAVID MEDD, DScSS 1974
WELWYN, HERTFORDSHIRE

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EDIT WANTS to hear your views on the issues raised by contributors. The writer of the most distinctive letter to the next issue of Edit will win a prize for their efforts.

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In defence of the King

JAMIE BYNG's article 'In the Black' in your Winter 1997/98 Issue is interesting and highly readable, but surely he is over-egging it a bit when he talks of the 'marginalization' of black music? It seems particularly unfair that Benny Goodman should be singled out as an example of whites feeding off (unacknowledged) blacks when in fact Goodman was famous for using black musicians alongside white at a time when such integration on the public bandstand was practically unheard-of. (Incidentally, Mr Byng is a decade out in his dating of the King of Swing era.) And Goodman freely admitted - indeed openly demonstrated - his debt to such celebrated black bandleaders/arrangers as Fletcher Henderson and Count Basie.

To say that Goodman was 'simply imitating and diluting ... Louis Armstrong, King Oliver and Hot Lips Page' seems not only unfair but strangely obtuse. The first two of those three were such early, seminal, universally recognized figures in jazz that no one, black or white, playing jazz-based music at that time could fail to have been influenced by them. As for Hot Lips Page, in what way Goodman is supposed to have

ripped him off is beyond me entirely.

Black-white racism has surely been less evident in popular music than in most other fields. It would be a shame if the Payback imprint were to be afflicted with racial chippiness based on false assumptions.

On a nostalgic note, I remember with pleasure attending, as a student in the early 1950s, Usher Hall concerts featuring Oscar Peterson, Ella Fitzgerald, Sarah Vaughan, Big Bill Broonzy and others. (Big Bill is said to have been so overawed by the magnificence of the venue that he had to be well 'lubricated' to get him on stage - where he proved to be a unique if somewhat garrulous entertainer.) Any tendency among jazz and swing fans in those days to rate music by the colour of the musicians playing it would always have been on the basis that the black music had to be better because it was more 'authentic'.

If Mr Byng believes that black people haven't had the financial rewards they deserve then that's another matter, but if so he should state his argument more clearly.

I.M. HOURSTON, MBChB 1955
STROMNESS, ORKNEY

The universal model

Inspired by news of Edinburgh Parallel Computing Centre's acquisition of the 256-processor CRAY T3E-900 to study, among others thing, the mysteries of the Universe,

Professor Richard Lathe looks to the next generation.



- More tea, Zansak?
 - Thanks, just a little. How's that lad of yours doing?
 - Jez you mean? Well he's doing pretty fine. Getting on to 42 trillion trillion trillion calculations per cubic yoctosecond and he's just a baby. We're pretty proud of him but it's still early days.
 - How are his practical abilities coming on - I guess he's got lots of toys?
 - Funny you should ask. You know how we are regular nine-dimensional entities, and all that, but maybe you remember we discussed the theoretical possibility of a self-contained universe with just three space dimensions and one time dimension? Wasn't it when you came over for dinner?
 - Sure, I remember.
 - Now you're not going to believe this, but our Jez must have been listening in because he went away and built one.
 - What? He built a universe?
 - Yessir!
 - By himself?
 - Seems he started with a kit for a miniature galaxy, and it just grew from there. He was at it for a whole week, we hardly saw him. Want to see it?
 - Of course, if you've got time.

* * *

- So here it is. It's a bit big and complicated but you'll get the general idea.
 Zansak drifted in amazement, a complete working model of a three-dimensional universe lay before him, with gently orbiting star systems interwoven in a vast complexity of brightness.
 - Wow! That's pretty good.
 - Yep, you should see it when we turn off the tachy lights. What's neat about it is that the total mass of the universe is just enough to prevent it expanding infinitely outwards, so it sort of recycles material to the extremities and back again by a process that Jez calls gravitational convection.
 - But what keeps it going?
 - Oh, it converts matter to energy in a big way, but it'll run down in the end because there's no way to make it energy tight.

Already it's a bit dimmer than it was a few days ago. You'll also notice ... Hey, that's real weird, the darned model is giving out some kind of radio signals. Where's that boy? Jez, JEZ, come here right now!

- Hey, what's wrong now? You like my model, Mr. Zansak?
 - Now look here, Jez, there are radio signals coming from it. That's the second time there's been a problem this week. Yesterday it was the stink coming from a planet with scaly things crawling all over it, now it's radio signals of all things. Radio signals! I don't believe it, Jez, you can't have cleaned up those scaly things properly.
 - Oh I did, I really did, I gave it a really good spray.
 - Let's see, where is it - one, two three, four - Ahah - here it is. Good grief, JEZ, it's wet, it's bloody well WET, it's covered in water. You blind, Jez? The goddamned thing is so wet it's blue! No wonder it keeps going off.
 - OK, I'll show you what to do. You wipe it down very carefully - like this - so as not to change the mass, and to make sure I'll give it another spray. Sparkling clean!
 - Right, you can put it back now, fits just there, give it a gentle spin to set it going. And, Jez, my lad, I've had it up to here, if there are any more problems with your model you'll just have to get rid of it.
 - Well, Zansak, it's neat but it doesn't prove anything - the three-dimensional universe must remain just an intriguing mathematical possibility.

Professor Richard Lathe, Centre for Genome Research and Centre for Neuroscience, The University of Edinburgh