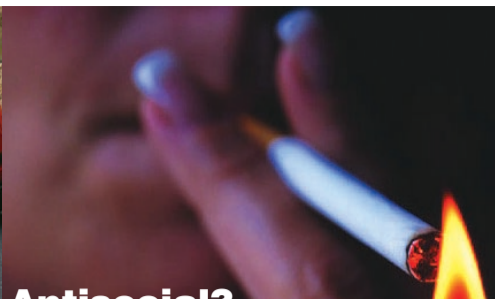




Gas guzzlers

Felix Business looks at the rising price of crude oil, page 3



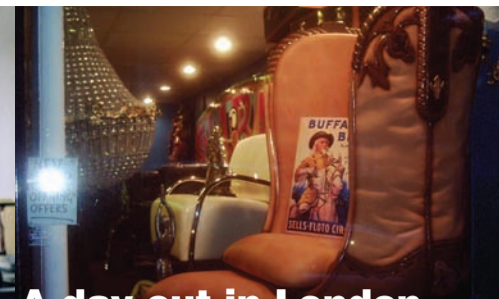
Antisocial?

The Government plans to ban smoking in public places, page 7



Five stars

The bizarre *I Heart Huckabees* is a hit with Felix Film, page 22



A day out in London

Felix explores Notting Hill, page 17



Felix



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Fun of the fair

Last Wednesday, an estimated 1500 students attended this year's highly successful City & Guilds College Union Internship Fair.

►NEWS page 2

Showing mercy?

"Animal testing and factory farming are just examples of our arrogance as human beings..."

►COMMENT page 10

Rubbish revolution

"So, where are the recycling facilities at Imperial – a centre of excellence for environmental research? That's the question an increasing number of people, both staff and students, are beginning to ask..."

►COMMENT page 11

Musical scientists

Reviews of two recent concerts by Imperial College orchestras.

►ARTS page 20

The week in sport

Football, hockey, netball, swimming and ultimate frisbee, plus all the week's results.

►SPORT page 26



Imperial's Ultimate Frisbee team, the Disc Doctors

THIS WEEK

News	page 2
Business	page 3
Science	page 4
Comment	page 8
Careers	page 12
What's On	page 16
Nightlife	page 18
Arts	page 20
Books	page 21
Film	page 22
Coffee Break	page 24
Sport	page 26

Banker murdered close to Imperial halls

By Rupert Neate

A wealthy city financier died and his wife was seriously injured by two knife-wielding attackers on Monday evening. The attack took place in Upper Cheyne Row, Chelsea, a few minutes' walk from Imperial College halls of residence in Evelyn Gardens.

The couple were attacked by two youths at their luxury three-storey town house. The couple's nine-year-old daughter discovered her bleeding parents and telephoned the police.

John Monckton, 49, was head of bonds management at Legal & General where, according to *The Times*, he controlled approximately £26bn of assets. He died later the same night at Chelsea and Westminster Hospital. His wife, Homeyra, underwent intensive surgery and is now in a critical condition.

Students in Evelyn Gardens, near London's fashionable King's Road, are used to their upper class neighbours, but a violent stabbing must come as something of a shock.

A Fisher Hall subwarden told *Felix*: "In truth, I don't think Chelsea is dangerous – I believe the crime rate is generally low, especially compared to nearly every other London region." The



Police officers in Upper Cheyne Row, where a man was murdered on Monday night

subwarden added that students should feel safe and secure, especially as "Evelyn Gardens are now patrolled at night by security."

Dominic Clout, the

Commander of Kensington and Chelsea Borough Police, said: "I've got a community in shock. This is a tragic, tragic murder."

Two youths were seen flee-

ing the area in the direction of King's Road at 7.30pm. Police believe the murder may have been a bungled burglary and are appealing for any witnesses.

Half of Imperial students to come from overseas

By Dave Edwards
Editor

The proportion of overseas students at Imperial College "could well go to 50-50 over time", according to the Rector, Sir Richard Sykes.

A report in *The Telegraph* this week stated that Imperial plans to increase the number of overseas students and postgraduates in an attempt to raise funds.

Universities currently receive around £5000 per year from the Government for each British and European Union undergraduate, plus just over £1000 in tuition fees. Students based elsewhere, however, are charged upwards of £10,000 to study at Imperial, so increasing the proportion of these students would be of obvious financial benefit to the College. Since 2000, the number of foreign students at Imperial has risen by almost one third.

Sir Richard added: "Overseas students pay the full economic cost of their education, unlike British and European Union students. The proportion of foreign students will continue to grow."

He also claimed that overseas students were often more capable than their British counterparts, saying: "If you take a candidate from the UK with an A in maths and one from Singapore with an A in maths, the student from Singapore will probably be better educated."

Council confusion over membership

By Dave Edwards

Two students arrived at Tuesday's meeting of Imperial College Union Council expecting to take up Ordinary Member positions, only to be told that they had not been elected after all, due to a counting error.

Sebastian Pearce and Tom

Tibbits "had been elected Ordinary Members of Council", according to the minutes of the previous meeting, and claimed that they had never been officially informed of the mistake.

The Council, the main governing body of the students' union at Imperial College, spent almost an hour discuss-

ing the issue, without knowing which of the students present were elected members and which were not. One student asked: "How can this meeting continue if we don't know the membership?"

Mr Pearce said that if he had been informed of the error he may have stood in the recent re-run election,

throwing the results of that ballot into doubt.

Mustafa Arif, President of Imperial College Union, asked for 24 hours to investigate the issue and told *Felix*: "I want to check all the correspondence and the transcript of the last Council meeting. No election process is perfect – the results are what they are."

Felix

Issue 1308

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NEWS

Internship Fair comes to Tanaka

By John Collins

Last Wednesday, an estimated 1500 students attended this year's highly successful City & Guilds College Union Internship Fair, which for the first time took place in the College main entrance near the Tanaka Business School and in the foyer of the mechanical engineering building.

The entirely volunteer-run Internship Fair, now in its third year, is an excellent opportunity for non-final-year undergraduates to meet recruiters and organisations offering a range of options for students to obtain work in the summer. Engineering firms, banks, professional service firms, research stu-

dents, careers advice staff, alumni representatives and charities offering placements in the third world were all on hand to advise students of their many opportunities for summer work.

Senior College staff, including the new Faculty of Engineering Principal, Dr Julia King, dropped in to lend their support for what has become the largest Internship Fair so far.

The C&G Internship Centre Coordinator, second year chemical engineering student Anne Baarup, said that she was delighted with the high attendance of both employers and students, and has many ideas on how to improve what is fast becoming CGCU's most popular annual event.



Students fill the foyer of the mechanical engineering building during the recent Internship Fair

BATTLE OF THE BANDS

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8pm-2am

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Snake Bite & Black
Only £1 until the cellars run dry!

Rock dols London

International interest

A look at the week's developments in Ukraine and Zimbabwe

By Emily Gwyer

While the home political front has looked slightly start-of-new-session petty this week (does anyone really care about David Blunkett's lover's nanny, really?) there have at least been some dramatic goings on around the world, not least a revolution. So let's ignore Westminster for a change and look out over the water.

The most dramatic, interesting and unexpected story of the week was that revolution took place in Ukraine after the Presidential election was thought, by half the population, to have been rigged in favour of the incumbent, a Mr Viktor Yanukovich, who is the pro-Kremlin candidate backed by President Putin and most of the east side of the country. The challenger, Viktor Yushenko, is a liberal

who has strong support in the west (of the world and the country).

The elections, in which the official results were 49.6% to 46.6%, were criticised by the international observers, and the results were denounced by leaders around the world. The result sparked off a mass riot and close to a civil war in which hundreds of thousands of protestors filled the frozen streets to barricade Parliament and the President's residence until the decision was debated by the High Court. The stakes were raised when Colin Powell, still acting as US Secretary of State despite his resignation, announced that Washington "could not accept" the results and was prepared to withhold \$150 million in annual aid until it was sorted out. This was not popular with President Putin,

who sees Ukraine as very definitely part of his area of influence and not America's.

This was a favourite story of *The Independent* all week, unsurprisingly as it focuses so strongly on international news. There were some amazing pictures in the paper of protestors placing flowers in the shields of the riot police, in a demonstration where they wished to act peacefully.

The Telegraph also devoted a fair bit of space to the story, saying that "the crowds behind Mr Yushchenko are to be congratulated for challenging a corrupt system within Ukraine and Mr Putin's blatant attempt to influence the result from without... their 'orange people power' has rocked a corrupt, devious and retrograde establishment without the fatal consequences visited on rebels against Soviet rule during the



Viktor Yanukovich, current President of Ukraine

Cold War or on democracy demonstrators in Tiananmen Square 15 years ago. Thanks to them, Ukraine now has a chance of fulfilling the democratic promise offered by independence in 1991".

The Guardian points out that the interference in the election by both the Americans and the Russians

smacks of the Cold War, and says that whichever candidate they choose, the Ukrainians must be the ones with the final say. They also point out that Mr Yushchenko was part of the same government as the Prime Minister and so the situation is not as clear cut as one would like: "No one comes away from this game with completely clean hands". Although the situation in Ukraine is far from decided, it is thought that there will be rerun elections, provided both men say that they will trust the results a second time.

Also abroad, but concerning Britain, was the decision by the England Cricket Board (ECB) and players to (grudgingly) continue with their tour of Zimbabwe, provided that they are never put in a situation where they may have to shake hands with govern-

ment officials or President Robert Mugabe.

The newspapers were generally scathing about this, especially after the attempt by the Zimbabwean authorities to prevent the entry of sports journalists into the country. *The Independent* compared the entry of the cricketers to the simultaneous deportation of aid workers from the country, while *The Mail* called the matches the "tour of shame" and said that the only reason they are going is to avoid financial damage to the ECB.

The Telegraph and *The Guardian* reported how the players themselves did not want to go but were let down once again by poor leadership, having been put between a rock and a hard place. All of the papers are, it seems, united with the players in hoping the tour is over as quickly as is humanly possible.

Business

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More oil, anyone?

No doubt the extensive coverage of crude oil prices has given you information overload. **Ben Hasted** demystifies all

Welcome to the first of what will hopefully become relatively regular articles here in the *Felix* business section. Following on from our business editor's brief foray into crude oil price rises, I felt an urge to elaborate on the fascinating issues causing the prices to rise faster than... well, something rising very fast!

As I write, oil prices are about 60% higher than they were in January. This certainly begs the question, "Why?"

The increase in price has been caused by several contributing factors, some of which have been on the front pages of even the 'less than quality' newspapers.

The demand for oil has increased worldwide; two major players are the United States and China. The US has a greater need for oil now that its economic recovery has gained strength (all those gas-guzzling SUVs have to get fuel from somewhere) whilst China's economy is expanding at such a rapid rate that its demand has increased by 20% over the past year.

In the drive for cost-cutting that all companies undergo every so often, many oil companies have tried to enhance efficiency by operating with lower stocks of crude oil. These stocks provide a cushion when a supply interruption occurs for whatever reason, and so it follows that with less stock comes less cushion – those supply interruptions have much more of an impact on prices now.

OPEC (a producers' cartel accountable for about half the world's oil exports) tries to keep oil prices where they want them by decreasing or increasing the supply of oil to the market. In the past,



The Ferrari Scaglietti 612: the term 'gas guzzler' is an understatement for this £150,000 beaut. Taking it down to Harrods and back would cost you £14, and that's without making any purchases from Mr El Fayed

they tended to wait for a price dip before cutting output, but recently they have been acting more aggressively and have tried to pre-empt weakening of prices by cutting output early.

Political tensions throughout the Middle East, which remains the main source of oil for the world's major consumers, and violence in Iraq have undermined confidence in the security of supply from the region. Iraqi exports have actually been cut by sabotage attacks on oil facilities, and whilst the reduction in exports is relatively small, it

has concerned analysts and cast doubt over Iraq's future as a stable oil exporter.

This lack of confidence, and the possibility (some would say certainty) of further violence in the Middle East, expose the market to sudden price rises if supplies are threatened. Speculators are very much aware of this and are betting on higher prices. This in turn exacerbates the price pressure in the market, and OPEC officials have even gone so far as to blame speculators for the price surge this year.

There are other factors,

such as the US' lack of refining capabilities: environmental regulations demand different grades of gasoline, varying from state to state, making catering for these different markets difficult. This, along with environmental concerns about building new refineries, can make planning permission expensive and difficult to obtain. Combine this with worries about the stability of Nigeria, Norway and Russia's oil production and you have a good many reasons for hikes in prices.

Recently, oil prices did take a small dip when reports

arrived of an unexpected increase in US oil stocks, but analysts remain far from optimistic in hopes for steadily falling prices. One analyst said: "A cold snap or a problem somewhere or other and we could easily revisit those high levels," so let's keep our fingers crossed for a hot winter worldwide!

As you can see, there is no one contributing factor to the increase in oil prices and, unfortunately for us, the best we can do at the moment is hope that the US sells all its SUVs and world peace happens tomorrow!

Latest from the Square Mile

By Numaan Chaudhry
Business Editor

Further Flight Fight

MyTravel, the troubled holiday group, revealed last weekend that it faces the prospect of being fined thousands of pounds by the FSA, the UK financial services regulatory body. The announcement came amid a restructuring of MyTravel's £800m debt, much of which is held by bondholders Lehman Brothers and Fidelity. Although the bondholders voted against the restructuring, a high court ruling approved the subsequent plea and allowed a debt-for-equity exchange, a mechanism allowing the firm to free itself from debt but keep the capital raised from the initial bond issue.

Viktor vs Viktor

Judges in Ukraine have halted the crowning of Viktor Yanukovich, the recently elected Ukrainian prime minister, after mass rebellion by eastern Ukraine and his opposition leader, Viktor Yushchenko. The immediate appointment of Yanukovich could have led to civil war after there were rumours of a fraudulent election and artificially created poll results. A difference of 2.85% caused the stir and subsequent mass strikes that have demanded the attention of the US, European Union governments and Nato.

Chaudhry's rating

Chaudhry anticipates a move upwards in the FTSE 100 index over the coming weeks as the dollar continues to weaken and hence increases the cost for exporters from the UK. However, EU exporters will feel the strain as the euro continues to strengthen against both the pound and dollar. Although this is by no means the only reason for markets to move, we should expect the FTSE Euro 100 to dip.

What would you do with £1000?

By Beccy Knights
Entrepreneurs Challenge
Manager

This is the question that ten lucky Imperial students will have to answer on Thursday 9 December.

The Entrepreneurs' Challenge, now in its fifth year, is one of the world's biggest student business plan competitions. The 'Ideas Challenge', the first part of the competition, ran this term and asked for a 2-3 page summary of a business idea. Ten £1000 prizes and ten £250 prizes are

awarded to the winners at this stage.

Next year, the 'New Business Challenge' offers students the opportunity to present a full business plan for a chance to win the first prize of £25,000 in cash and services, one of two runners-up prizes of £5,000 in cash and services, or a finalist cash prize of £1000.

Come and show your support to your fellow students and find out who this year's Ideas Challenge prize winners are. Don't forget to join us afterwards to cel-

brate with festive drinks and snacks in the Tanaka Business School!

David Begg, Principal of the Tanaka Business School, will be awarding the prizes to this year's winners and runners-up. Which ideas will the judges find the most innovative and convincing this year? You can judge for yourself as the ten winners try to convince you of their idea through their elevator pitches.

The Challenge is open to all Imperial College students, undergraduate and post-graduate, and is run by the

Entrepreneurship Centre in the Tanaka Business School. Students do not need to have prior business or commercial experience to enter. Previous winners have come from a variety of departments, including physics, medicine, mechanical engineering, industrial design engineering and biological sciences.

Teams that have taken part in the Entrepreneurs' Challenge have been successful in London-wide as well as international business plan competitions, proving Imperial's students to be

among the best at developing and presenting ideas. Some teams have also gone on to raise investment capital to make their businesses a reality.

The competition attracts companies such as McKinsey, IBM, Psion, Shell, HP, HSBC, Barclays Capital, Amadeus Capital and Innocent Drinks to sponsor the competition or pass on their expertise to our students, meaning entrants have a wealth of experience available to them as they put their business plans together.

Science

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Why do the unsolved problems of maths matter?

In the first of a series of articles, **Alex Antonov** considers the significance of the toughest problems in mathematics. The P=NP problem is one of the most important of these

"Who of us would not be glad to lift the veil behind which the future lies hidden; to cast a glance at the next advances of our science and at the secrets of its development during future centuries?"

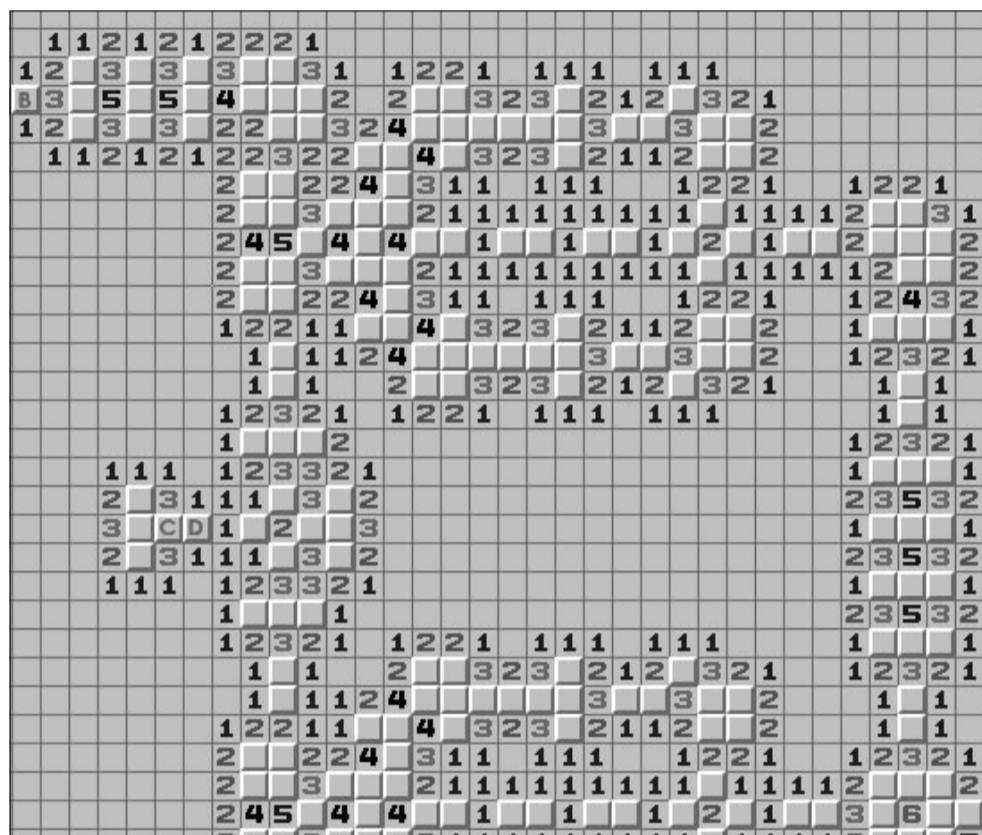
Thus David Hilbert opened his address to the second International Congress of Mathematicians in Paris on 8 August 1900, before announcing his seminal list of 23 problems. Much of the mathematical research in the 20th century has been influenced by this list of unsolved problems, as both successful and unsuccessful attempts at solutions have yielded a number of important discoveries on the way.

To commemorate the occasion and provide a suitable launch for mathematics into a new century and a new millennium, one hundred years later, the newly-formed Clay Mathematics Institute (CMI) of Cambridge, MA, devised its own list of old nuts that have yet to be cracked and formally announced it at the Collège de France in Paris on 24 May 2000 in a lecture entitled "The Importance of Mathematics". While to some the latter might sound like an obvious oxymoron, there are some circumstances surrounding this list of problems which indicate that this is not just mathematics for mathematics' sake.

For one, the founder and sponsor of the CMI is not himself a mathematician, nor did he read maths at university. Landon T Clay is a Boston businessman who believes maths research is underfunded and would like to see a wider dissemination of mathematical knowledge. Then, there is also the attractive price tag of \$1,000,000 attached to each of the seven problems to be won by the first person to demonstrate a correct solution. So if you thought maths couldn't make you rich and famous, think again!

The list of problems itself has been carefully selected to include not only the most difficult ones, but also the ones whose solutions would have a relevance to areas of mathematics and the other sciences beyond the one in which the problem was originally formulated, hopefully leading to further serendipitous discoveries en route. Thus, far from being formal exercises, the seven prize problems are widely considered the most important problems in mathematics.

In an extended feature, I propose to look at each of the



Minesweeper: we've all played it, but did you know that it can be formulated as an NP complete problem, the solution of which would have widespread ramifications?

seven so-called millennium problems in a non-specialist manner and explain its significance, while conveying some of the excitement con-

"...there is also the attractive price tag of \$1,000,000 attached to each of the seven problems..."

tained in the mathematical concepts behind it. The first problem we consider is the P vs NP problem, notorious for the plethora of false proofs it regularly attracts.

P = NP?

Despite a rather unassuming name, the P vs. NP problem is, in a way, the problem of all problems. Originating in the field of computational complexity theory, it is essentially concerned with how easy it is to solve problems on a computer, or, put more cynically, whether computers will eventually replace mathematicians. Indeed, were this problem to be solved in the affirmative, it is most likely that a computer could furnish the proofs to the remaining six millennium problems.

So what do the symbols P and NP actually mean and why is their (in)equality so difficult to ascertain?

P and NP are just two of the many classes in complexity theory used to distinguish

between the difficulty of problems. Generally speaking, problems that are in P are easy to solve, while problems in NP are difficult to solve, but significantly, given an answer to an NP problem, it is easy to verify whether it is indeed a solution. For example, many of the problems involved in data processing, such as sorting information or searching and re-trieving, are instances of P-type problems. Formally, P stands for polynomial time, which means that the number of steps required to obtain a solution can be expressed as a polynomial in the length of the input.

On the other hand, there are data-processing problems that are not so easy. Consider, for instance, the

"Indeed were this problem to be solved it is most likely to furnish the proofs to the remaining six millennium problems"

'floppy-disk-packing' problem which asks whether, given a number of floppy disks and a number of computer files, it is possible to copy all the files to the floppy disks. For small numbers of disks and files, it is straightforward to give an answer: you just go through all the possible combinations. However, if large numbers are involved,

it quickly becomes very difficult to solve: the possibilities are simply too many. At the same time, given a particular answer, you can reasonably easily check whether it is indeed a correct answer. This is an example of an NP-type problem. Formally, NP stands for non-deterministic polynomial time and includes the problems whose answers can be checked in polynomial time, given the right information.

However, the 'floppy-disk packing' problem is not just any NP problem. It is in fact an NP-complete problem, which means that all other NP problems can be reduced to it. This includes some interesting examples, such as the problem of prime factorisation, which is in NP but is not known to be NP-complete. Before you get too excited, let me point out that there are actually quite a few NP-complete problems, so there is nothing special about our floppy disk example. In fact, there are a number of popular games that can be formulated as NP-complete problems, among them checkers, crossword puzzle generation, and even Minesweeper!

Let us recall the actual problem: is P equal to NP? In other words, if the solutions to a problem are easy to verify, is it possible that the answers can be easy to compute as well? It turns out that this is a very difficult ques-

tion to answer either way.

Whether one is trying to prove or disprove the above proposition, the class of NP-complete problems turns out to be crucial. For, if trying to prove P=NP, it would suffice to show that there is a method which can be used to solve one of the NP-complete problems in polynomial time (remember, an NP-complete problem is such that all other NP problems can be reduced

"...an affirmative proof would have potentially stunning consequences"

to it). Conversely, if trying to disprove P=NP, it would suffice to demonstrate that a certain NP-complete problem is not solvable in polynomial time (one way to do this would be by showing that the least time the problem could be solved in is super-polynomial).

Although this may sound like a fairly abstract problem, an affirmative proof would have potentially stunning practical consequences. Hundreds of NP-complete problems are known, many of them related to scheduling and routing problems with industrial importance. For example, there is a problem concerning the fitting of oddly shaped items into a knapsack, which is closely associated with the question of placing components on a circuit board, while the problem of constructing a working timetable for a school so that teachers and students are never in two places at the same time is similar to the problem of placing pilots in an airline.

Perhaps more importantly, however, there is the problem of factorising large numbers, which lies at the heart of modern cryptography. The codes routinely used to secure worldwide financial transactions are complexity-theory based and, in particular, the proof of their security assumes P is not equal to NP. Were it to be proven that P does equal NP, current ciphers could become obsolete overnight.

Despite such potentially destructive consequences, there are some of a more positive nature. For example, as mentioned earlier, an affirmative solution to the problem will allow a computer to find a formal proof to any mathematical theorem, provided it has a proof of reasonable length. More strikingly, it is thought that this

may be applied to other areas of creative human endeavour, such as designing planes, creating physical theories or even composing music, as in each case what is ultimately required is an efficient method for recognising a good result. Finding such methods is one of the fundamental problems in artificial intelligence, whose resolution would be aided by a proof of the P vs NP question.

With such momentous implications, it is unsurprising that many people are interested in finding a solution to this particular millennium problem. Indeed, an astonishing number of papers are regularly published purporting to have found a proof. However, ever since the problem was initially formulated in the 1970s, there has been no success, whatever the line of attack. This has prompted speculations that the problem may be unsolvable after all and, in particular, Gödel's incompleteness theorem has been invoked.

"...this has prompted speculation that the problem may be unsolvable, and in particular, Gödel's incompleteness theorem has been invoked"

have accordingly proposed that 'P not equal to NP' (for that is what most complexity theorists believe to be the case) be established as a new assumption.

Over time, the fact that a proof definitively settling the question one way or the other has failed to materialise, has lent a somewhat metaphysical aura to the problem. In complexity theory circles, whether P equals NP has become a matter of belief rather than a matter of established fact. When and if the problem is finally resolved (and there is little indication of this happening in the foreseeable future), it is bound to affect the way we do science. Perhaps the picture is not so gloomy though: remember, all you have to do to solve the problem and win the prize is solve the equivalent NP-complete Minesweeper problem, which boils down to demonstrating an efficient algorithm for playing Minesweeper perfectly (without unnecessary guesses)!

SCIENCE

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Organs for sale: the wages of the poor

By **Giovanna Larice**
Biochemistry department

A young Moldavian engineer is lured to Istanbul on the promise of work. On his arrival he finds the promise unfulfilled, the job dissolves and it is suggested to him to sell his blood in order to pay for his return fare home. Accepting, he finds himself awakening from the anaesthetic with a deep scar on his left side only to find that one of his kidneys is missing. He is offered \$3000 for his loss (the going rate for a kidney in Moldavia) and told to either accept or to sort his problem out otherwise. This is a chilling and gruesome urban myth-like story reported by the BBC correspondent Sue Lloyd-Roberts in Turkey.

There are many such grisly stories circulating on the streets worldwide, on the internet, in the shantytowns, tent cities and squatter camps of the third world. The stories of kidnapping, mutilation and organ selling are a mixture of metaphor and fact, and are told and remembered because people feel that there is "something going on".

The sale of human organs is currently illegal in most countries, including the UK, and is considered by many to be repugnant and morally outrageous. Critics claim that making the practice illegal merely moves it underground. In many countries such as India, Israel, China, Turkey,

Iraq and Russia, organ traffic takes place regularly and without too much attempt at secrecy.

Investigations by the BBC into the trade of human organs in India in 2002 showed that an Indian city in Madras had been nicknamed 'kidney city' as most of its inhabitants had sold this organ for cash. In these cases, unsurprisingly, socially and financially disadvantaged individuals are the ones being exploited; the buyers are stereotypically foreign and wealthy and most of the money goes to the middle men.

Nonetheless, perhaps it is time to accept the fact that all in this world is now seen as a commodity, including body parts, and that the decision to sell one's kidney, eye, portion of the liver or other is an unde-

"Perhaps it is time to accept the fact that all in this world is now seen as commodity, including body parts..."

niable personal privilege.

Donating organs to friends or family members, perhaps even strangers in need, would be thought by many as something incredibly altruistic and noble, yet accepting money for the same renders the exercise intolerable. People who understand this and see it as a problem perhaps fail to see the bigger picture. Most of the



Beggar's belief: poor people throughout the world are being forced to sell their organs

organs that come from living donors come from the poor to the rich, from the less powerful to the more powerful, from the south to the north, from the black and brown to the white and from women to men. The poor undergo what are generally illegal, unhygienic, 'dodgy' operations to remove and sell precious organs in order to get out of debt or to support their families, yet the money they get for this trade is minimal and their families soon encounter the same dreadful financial difficulties.

Furthermore, in a hypothetical world where selling and not donation is the keyword, the poor and the disadvantaged will never be

in a position to afford these prized organs and will always remain on the donor side of the exchange.

On the other hand, as Lloyd Cohen (a law professor at George Mason University in Virginia) suggests, one could argue that most of the vital things in our lives (like food, housing, clothes, etc) are bought and not donated. Why can't the same apply to organs? We live in a dog-eat-dog world where power and money carries a lot of weight, like it or not.

According to the American author and newspaper man Henry Louise Mencken, "for every complex problem there is a solution that is simple, neat and wrong". Maybe we

have got it wrong and we need to remove the ban on organ selling (thus hopefully avoiding a black market system) and attempt to make these transplants less exploitative of poor donors, less expensive for the rich recipients, and safer for all.

A survey conducted at Imperial College on whether people should be allowed to sell their organs showed that 40% of students thought this should be the case whilst the remainder did not. The public seems to be undecided, but what's clear to me is that the issues of legal and illegal organ trading are linked and the former needs to be readdressed in order for the latter to change.

News in brief

UK study sees little harm in GM crops

A major government and industry-backed UK study found no evidence that genetically modified crops harmed the environment. The project found that the technology could even help growers save money. The four-year study enraged green groups who immediately dismissed the results as one-sided.

Flu pandemic inevitable

Every country in the world must urgently come up with a plan to deal with an inevitable influenza pandemic likely to be triggered by the bird flu virus that hit Asia this year, according to a top global health expert. "I believe we are closer now to a pandemic than at any time in recent years," said Shigeru Omi of the World Health Organization. "No country will be spared once it becomes a pandemic".

Wind industry to meet energy demands

The European wind energy industry, thriving as climate change tops the global agenda, says it could eventually supply all the continent's electricity but must first overcome public resistance over the appearance of turbines. The European Wind Energy Association predicted that offshore 'wind farms' covering an area the size of Greece could meet Europe's electricity needs.

Device to probe limits of Physics

UK physicists have completed the first crucial element of an experimental device designed to probe the forces that shape our Universe. The Atlas experiment will explore the fundamental properties of matter and look for 'new physics' beyond the limits of our current understanding.

Asia faces results of climate change

The weather predictions for Asia in 2050 read like a script from a doomsday movie. In the decades to come, Asia will lurch from one climate extreme to another, with impoverished farmers battling droughts, floods, disease, food shortages and rising sea levels, unless there is a global effort to rein in greenhouse gas emissions.

The evolution of female promiscuity

By **Sonja van Rensen**
Science communication

Unfortunately there is something called antagonistic co-evolution. This means that as we females are developing increasingly sophisticated means of avoiding the constraints of a relationship, our males are evolving state of the art devices to prevent our doing so.

Sadly, it's in every male's interest to constrain promiscuity to increase the chances of his, rather than someone else's, sperm fertilising an egg.

As a female, there are several manipulation techniques to be aware of, which may be broadly grouped into the behavioural and the physical. The former are the more subtle and can at times be very difficult to identify for what they are.

A good example is the gift. A virgin green-veined white butterfly will present his first female with a food gift that may be as much as 23% of his whole body weight. The lucky (or not so lucky) recipient is much less likely to re-mate than one who has received a smaller gift.

There are two messages here: be wary of gifts and avoid virgins.

Another example is attentiveness. In some insects, continuous antennae tickling is used to keep the female permanently locked into a particular relationship. In the world of birds, a male tit will be prepared to have sex at any time, in any place, to prevent promiscuity.

Again, there is an important message here: don't be fooled by what appears to meet demand; there is always

"...it's in every male's interest to constrain promiscuity to increase the chance of his, rather than someone else's, sperm fertilising an egg"

something bigger and better out there.

While these are all relatively subtle manipulations, it is crucial to realise that some males may resort to brusquer, physical methods of control if their sperm is threatened.

Perhaps the most common ploy in this category is the plug. This can be a serious impediment: a scalpel will bounce off the plug inserted into the female cavity by a house mouse after sex. The

male honeybee, should he beat 25,000 compatriots to the Queen, will actually explode after sex, leaving his genitalia firmly embedded in the royal flesh.

Even this apparently insurmountable obstacle can be overcome however, and, ironically, the solution is supplied by the very males who are trying so desperately to protect their sperm.

Evolution has helpfully led to the development of a wonderful variety of penises which can be extremely adept at erasing any traces of a predecessor in the female cavity.

An excellent example is the black-winged damselfly penis, which is almost exactly like a toilet brush in form and function, efficiently cleaning out the female cavity prior to penetration. Or take the rat's prehensile penis, which operates through suction.

The message here is obvious: don't underestimate the ingenuity of a potential lover; use it to your advantage.

There are other physical means by which males try to give their sperm an edge in any particular female, but since many of these do not directly impede promiscuity they are of little interest to us here. One example is the



Detail from Edward Hopper's Summer Evening

attempt to dominate through volume: dung fly experiments have revealed that a decrease in monogamy can be coupled with an increase in sperm production.

While this is all very exciting news for the male, we can afford to ignore it as long as it does not affect a female's desire to copulate.

In conclusion, antagonistic co-evolution is not as bad as it seems: the increasingly devious methods of manipulation by males will always meet their match in females through co-evolution.

The potential benefits of female promiscuity will continue to be a driving force for

its existence and indeed it is difficult to envisage a scenario in which promiscuity would be significantly curbed.

For those males who place their hope in the restraining power of society, take heed that the rampant yet stable societies of chimpanzees and bonobos that negate the idea that a functioning society somehow requires monogamy.

Perhaps at the end of the day, it is time for males to accept the fact that has been staring them in the face for so long now: it is us females who are really calling the shots and, yes, we like to have a bit of fun.

SCIENCE

So what is it to be human?

The Pfizer Annual lecture at the Natural History Museum raised the questions. **Andya Primanda** reports on our genetic links with the ape world and our own genetic diversity

What makes us human?

Dr Armand Marie Leroi opened the first part of this year's Pfizer Annual Science Lecture 95% *Chimp – The Genes that make us Human* by reflecting on a 1860s debate over that question between two scientific giants of their time: Thomas Henry Huxley and Richard Owen.

Earlier scholars like Galen and Linnaeus had acknowledged that apes closely resemble humans, and Darwin's theory implied a common descent between humans and apes.

In the nineteenth century, Richard Owen, who wanted to protect man's special status in nature, sought to find the key difference that separates humans from animals, and he claimed that the hippocampus minor, a small fold at the back of the brain, is only possessed by humans. Huxley argued that any difference between humans and animals were just a matter of degree, and there was nothing special separating humans from animals. However, Huxley later conclusively demonstrated that the hippocampus minor is also present in ape brains. This demonstration marks Huxley's victory over Owen.

More than 100 years later, after subsequent developments which included the birth of genetics, the synthesis of evolution and genetics and the discovery of DNA, the question of what makes us human re-emerged. The first DNA hybridization studies found a 99% match between

human and chimpanzee DNA, and later research tended to reinforce this conclusion by achieving roughly the same results (95% to 99% similarity). By 2003, the human genome had been completely mapped, and the first draft of the chimpanzee genome had been finished. This data is to provide new ways to answer our question, to find out what are the differences that made us human. How do we find which differences are important? Dr Leroi suggested, by studying mutants.

Leroi cited the case of the 'Chuas'. The Chuas are a group of beggars in Shah

"The first DNA hybridisation studies found a 99% match between human and chimpanzee"

Daulah, Pakistan. They have small heads and are mentally retarded, a condition known as 'microcephaly'. Carl Vogt, an earlier student of human variations, studied microcephaly because he thought it would give him clues to the evolution of humans. It is now known that microcephaly is caused by a genetic disorder, a deleterious recessive mutation at the gene ASPM. ASPM is now known to be involved in brain growth, and further studies show that it underwent some major evolutionary changes during the course of human evolution.

ASPM is only the first known genetic difference



Similar: scientists are seeking to identify the genetic differences between chimpanzees and humans

between humans and apes. Another gene, FOXP2, was discovered to be associated with language ability. Dr Leroi predicts that we will find more of those differences as we do more comparisons across the human and chimp genome. These genes are part of what makes us human.

In the second part of the talk, Dr Leroi addressed the genetic diversity among living humans. Back at the time of Owen, Huxley and Darwin, racism was a general belief. People thought that there are inferior and superior races. But now, thankfully, such belief has been largely abandoned. This change in our views might be prompted by the Holocaust and the World Wars, in which racist ideologies caused horrible disasters to humanity.

After the advent of genetics, scientists started to study genetic variation among

humans. First it was discovered that, at the genetic level, races don't exist. However, this conclusion is somehow hard to grasp, because it runs counter to people's daily experiences.

There is a paradox in modern genetics. We now know so much about DNA and the genes but the simple questions remain unanswered. Ask a geneticist, "Why do people have brown or blue eyes?" The answer might be, "It's in the genes." But if you push for the details, asking what genes are responsible and how they do it, it's possible that our geneticist would not know the answer.

However, there have been studies on the genes responsible for visible differences. At least one gene, MC1R, which influences skin/hair pigmentation, has a variation that corresponds to geographical populations, or, races. This shows that, at least from

MC1R's point of view, human races do exist. Supporting evidence also comes from the discovery that different human ethnicities have different genetic disorder frequencies and genetic predisposition towards certain diseases, for instance, sickle cell anemia among Africans and cystic fibrosis among northern Europeans.

The study of racial variation is a controversial topic. Critics have already warned that the study of 'racial science' might end up misused by racists. However, certain differences between races are real, and we need to understand them if we are to implement social justice. Why do we need to know what makes people different? Apart from the obvious practical purposes, Dr Leroi pointed out another reason. There are people at the Natural History Museum and Imperial College studying the diversity of birds, flowers, parasitic wasps, and many others. If the diversity of these creatures are considered significant enough to justify research, then surely human diversity deserves more attention. And, he concluded the lecture, diversity itself is beautiful and admirable, something that is worth preserving and studying.

Some questions from the audience were concerned about the use of the results of human diversity studies. One raised the possibility of discrimination based on genetic profiles. Another asked whether the informa-

tion would lead to 'designer babies', parents choosing certain features for their unborn children. A geneticist commented that the human genetic diversity data is valuable for the purpose of tailoring drugs to meet the needs of various genetic backgrounds. This practice is not racist, she said, but the opposite is. Using drugs tested on a certain ethnic group on another with a different genetic profile would be dangerous and irresponsible.

The audience's concern seemed to converge on one theme – issues of ethics. The public asked the scientist, "What should we do with all this data of human genetics?" Genetics has become the 21st century Pandora's Box, just as nuclear physics was the 20th century's. We have discovered a lot, but we are still hesitant about this new knowledge. Would it be a great benefit or disaster to humanity?

Dr Leroi replied that scientists are not always capable to resolve ethical issues. This dialogue would require a greater public understanding of science and the involvement of those competent in answering ethical questions – philosophers, theologians, lawmakers. And while the scientist's job is primarily to find what is, I believe it is also the scientists' responsibility to keep the public informed of their work. Ignorance is no help, and the knowledge must be shared with everyone.

The science stuff this week



DARIUS NIKBIN
SCIENCE EDITOR

This is the news: blind car thief arrested in Romania after crashing car into tree, undertaker blown into grave by gust of wind during funeral, half naked New Yorker walks into police station and confesses murder, and finally, lightning bolt kills 10,000 kosher chickens.

This week's science section features our first ever maths feature article. Alex Antonov looks at the importance of the Millennium problems in mathematics and in particular the P = NP problem which has eluded explanation for so long.

We also report on the Government's White Paper on public health. Tom Simonite looks at the ban on smoking and the epidemiological evidence for the dangers of passive smoking, and Rosie Taylor examines the dietary issues and what the Government is planning to do to make us healthier.

The ban on smoking is something that should be at the forefront of every smoker and non-smoker's attention. What was once a fashionable habit in the 1950s may quickly become a social faux-pas. The Government's legislation is essentially recognising passive smoking as a 'risk'. This will inevitably lead to further stigmatisation of smokers. Whether this is justified or not on the basis of the evidence is a question that, to my mind, remains answered.

We also look at organ-trafficking and the exploitative economy that has risen because of it. Giovanna Larice takes a realistic approach to what many see as a deeply immoral trade. Given the

capitalist values that govern the world economy at the moment, why shouldn't poor people be allowed to sell their organs in a free market? Surely legitimising organ sales would put a stop to an illegitimate black market trade that sees donors being exploited by the middle men and rich purchasers? These are some of the questions addressed in the article.

Last year I interviewed Olivia Judson, whose book *Dr. Tatiana's Sex Advice To All Creation* was reviewed. This week, Sonja van Renssen takes an interesting look at the major theme of this book which is the evolutionary biology of sex – perhaps a taboo subject for the more conservatively inclined, but certainly a legitimate field for scientific study.

Finally we have a review of the Annual Pfizer Lecture which asks the question: what is it to be human? Andya Primanda's review takes a look at what separates us from the ape world and our own genetic diversity.

YOUR SCIENCE VIEWS tell Felix Science what you think

Last week's article on animal testing provides some useful information but, as usual, sees the issue from a myopic human perspective. Animal testing and factory farming are just examples of our arrogance as human beings...

(for the rest of this response, see Comment, page 10)

Veer Singh, Physics

Firstly, it will always be hard to understand what an animal 'thinks' or 'feels'. If it was possible to fully understand what an animal feels and thinks then this discussion would probably end pretty quickly. Second, developments to reduce animal testing are underway and new procedures are in place to minimise the use of animals. But to test the products on humans will obviously lead to many further questions, such as who and how? Consider this: testing on humans usually requires higher costs (through payments and procedures). Already drugs are very expensive, and this could increase this even further.

Feature writer: Emma Williams, Biochemistry

Any opinions about science? Email science.felix@ic.ac.uk

PUBLIC HEALTH WHITE PAPER SPECIAL

How smoking is about to be officially made 'antisocial'

The Government's plan to ban smoking in public places is one of the measures in the white paper.

Tom Simonite considers the evidence on passive smoking

Not content with curtailing the possibility of enjoying the stereotypically hedonistic 'student lifestyle' by introducing top-up fees, the Government has upped the ante with the recent white paper on public health.

Everything necessary to the true student has been found wanting – drinking, greasy takeaways, the occasional or perhaps frequent fag smoke and sex with people who don't know their VD from their KY due to bad sex education. OK, maybe not the last one, and who will listen to all this 'advice' anyway? Actually, when it comes to smoking, the Government has decided to go beyond providing handy tips on cigarette packets. The dramatic measures suggested make this part of the paper stand well out from the rest.

Due to scientific evidence on the dangers of second-hand smoke, workplaces and most public places will be smoke-free by 2008. Exceptions have been made for pubs that do not serve 'prepared' food, and

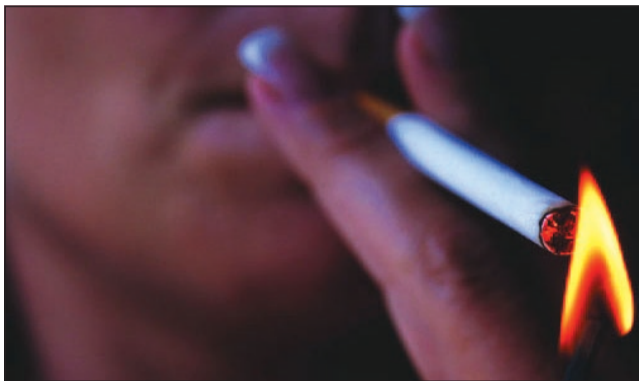
private members clubs where the membership wish to allow smoking.

The Government's announcement of its intention to ban smoking is the latest in a slow-burning battle that science seemed to have wrapped up long ago. The dangers of smoking to the smoker, particularly the greatly increased risk of lung cancer, have been highlighted

"The government's announcement... is the latest in a slow-burning battle that science seemed to have wrapped up long ago"

by various researchers for around 50 years. Evidence of the dangers of passive smoking has been slower to arrive.

A major reason for this is the difficulty of such studies, because so many other factors must be taken into account. There is much complexity in the science behind hard-hit-



Smoking: every person's right or a sociopathic addiction?

ting headlines like "passive smoking kills one bar worker a week". This study was carried out here at Imperial by Konrad Jamrozik, who was a professor of primary care epidemiology until earlier this year. He used two massive datasets to make estimates of the number of deaths in the UK each year from passive smoking. Records of all deaths in 2002 from lung cancer, ischaemic heart disease and stroke in Britons under 65, and on exposure to

second-hand smoke at home and work, were compared. Previous studies provided information on the risks of disease faced by smokers, non-smokers and those exposed to other people's smoke. Combining these sets of data and subsequent calculations gave Jamrozik those dramatic figures – 3600 deaths a year caused by passive smoking, 700 due to workplace smoke, 49 of them in hospitality.

Taken as a whole, epidemiological work on the risks of

passive smoking is convincing. But the way that the science of these studies works is found unconvincing by many when presented in the media. Such work is (easily) criticised for layering together multiple 'estimates' of risk. Pressure groups against a crackdown on smoking quickly point this out, dismissing anything so tentative as an estimate and balking at the mention of 'calculations' or 'projections'. "Show us concrete proof that passive smoking has these effects," they demand. Unfortunately, none is likely to materialise unless large numbers of people can be persuaded to sit in carefully controlled but smoky conditions for long periods.

The reception given to claims about risks associated with passive smoking is a good example of the problems with presenting research that produces 'risk factors'. Such studies are typically presented in the press as information upon which readers are expected to act to reduce

their risk. Unfortunately it's difficult to relate to these percentages, and an examination at how they are produced by scientists reveals methodology that can appear to be some way removed from 'fact'.

One of the most interesting features of the debate that continues to trail in the wake of the decisions on smoking has been the way that the scientific side, with all its percentages, has been downplayed. The focus has instead been on issues of choice and liberty. Are smokers entitled to smoke where and when they like? Are others entitled to go where they like and not encounter a smoky fog?

The dramatic figures provided by the work of Konrad Jamrozik and others have rarely been invoked; more frequently discussion is about whether we live in a nanny state. From the point of view of the science, this seems strange; shouldn't the discussion focus on the fact that smokers are damaging the health of those around them?

Using traffic lights to change the way you eat

The new legislation will try to tackle the obesity epidemic as well as other health issues.

Rosie Taylor explains how the Government plans to make the fat boys and girls slim

On 16 November, the Health Secretary John Reid published *Choosing Health*, the Government's public health White Paper.

The document sets out the Government's plans to make it easier for people to change their lifestyle so they eat more healthily, exercise more and smoke less. It also sets out moves to improve sexual health, encourage sensible drinking and improve mental wellbeing.

The strategies for action are, says the Government, based on the principles of informed choice, personalised services and collaboration between the Government, the NHS, industry and wider society. It identifies how, given better information and support, people can be empowered to make healthy lifestyle choices.

When it comes to the health of children, the Government feels that it has a special responsibility, along with families and schools. So in addition to better information and support, it has set out new standards for food in schools, promotion of physical activity and education on nutrition.

The changes aim to place health promotion at the heart of the NHS. This involves a big change in attitude, among

NHS staff and the public, in helping people choose healthier lifestyles and giving them greater control over their health.

Since treating ill health related to poor diet costs the NHS an estimated £4bn each year, this white paper was no doubt inspired as much by fears about the costs to the NHS of current trends in ill health, highlighted in the Treasury-commissioned Wanless report earlier this year, as by any desire to improve health for its own sake.

"The changes aim to put health promotion at the heart of the NHS"

A cornerstone in facilitating the public to make healthier food choices is the Government's plans to introduce, by mid-2005, a colour-coded system of food labelling. Presently, The Foods Standards Agency (FSA) is developing a 'traffic light system' to code food.

Gill Fine, Director of Consumer Choice and Dietary Health at the FSA, said: "People have told us they want to make healthier food choices and that they would welcome signposting to help them."



A new traffic light system of food labelling is set to change our dietary habits and the way we look at food

This labelling system will build on the nutrient criteria for the '5 A DAY' logo already in use. The '5 A DAY' logo system will be developed further as the Government works with retailers, caterers, manufacturers and producers to promote the 'five portions or fruit and vegetables a day' message. The average intake of fruit and vegetables in the UK is just 2.8 portions a day,

well below the recommended intake. Consuming at least five portions of fruit and vegetables a day can reduce the risk from heart disease, stroke and cancer by up to 20%.

The Government also plans to introduce clear labelling of the nutritional content of food, and the FSA has commissioned research to develop a scheme to categorise

foods on the basis of the nutrients they contain.

The Government, in collaboration with the food industry, aims to identify methods to reduce levels of salt, added sugars and fat, initially on a voluntary basis. These areas are being targeted in light of the strong evidence on their damaging effects on health. An estimated one in three deaths from cancer and coronary heart disease are attributable to poor diet. A reduction in the salt intake of the population from the current average of 9g to 6g per day would result in an estimated reduced incidence of coronary heart disease by 6%, stroke by 15%, and high blood pressure by 17%. Reducing fat intake, particularly saturated fat, can help lower the risk of coronary heart disease and some cancers.

New 'NHS health trainers' who have been dubbed 'NHS lifestyle coaches', will be introduced in 2006 to advise anyone who wants to live a more healthy life. These trainers will be equipped to provide individualised advice on a range of aspects including how people can become more active. The Government hopes that by creating thousands more miles of cycle paths, organising walking ini-

tiatives and easing access to sports facilities, the trend of dramatically decreasing rates of physical activity in the last 25 years will be reversed as people become more active.

The Government has also suggested a voluntary restriction on all advertising, promotion and sponsorship of unhealthy foods and drinks before 9pm, to minimise children's exposure to these influences.

Social inequalities in health exist, with those in lower social classes eating around half the fruit and vegetables of people from professional groups, and higher levels of obesity in the lower social classes. This social inequality underlies almost all public health concerns, and the Government plans to implement a range of measures to tackle these.

Additional funding will be given to Primary Care Trusts (PCTs) in deprived areas to tackle health inequalities and improve health. This will involve joint action by local authorities with business and voluntary groups. From 2006, people living in deprived areas will be encouraged to use a 'personal health kit' with support from their doctor and health trainer to improve their health.

Comment

felix@ic.ac.uk

Security or control?

Since 9/11 and especially since then, there has been a heightened sense of security awareness in all parts of the western world, but in particular in the United States. To some extent this has manifested itself in additional vigilance but it has also, arguably, led to a degree of paranoia. Exploitation of that paranoia has enabled politicians and administrators to introduce draconian new legislation, procedures and practises that interfere with and aim to control the day-to-day lives of ordinary citizens.

It's often stated that where America jumps, the world follows. The new 'security conscious' climate has certainly been crossing over the Atlantic and embedding itself here. First, the Government introduced 'emergency' powers in the Anti-Terrorism Crime and Security Act 2001. Amongst other affronts on civil liberties, this enabled the Home Secretary to detain foreign terror suspects, indefinitely, without charge. [Those of you who have been following the case of former Imperial student Babar Ahmad will know that this legal instrument was used to hold him without charge - see Colin Smith's article on the opposite page.] In order to pass this legislation, the Government had to opt out of the European Convention on Human Rights, which it itself had introduced into UK law with the Human Rights Act 1998.

The Government is now following its anti-terror legislation with a controversial bill to introduce National Identity Cards, as outlined in the Queen's speech last week. Civil liberties campaigners are up in arms over proposals that would enable law enforcement agencies - and others - to have access to unprecedented levels of personal information on each and every one of us.

The trouble when governments become Orwellian is that the culture gets embedded in all levels of society. And it's on that basis that developments in Imperial College security policies trouble me.

When I was a first year undergraduate, back in October 1999, security was mainly behind the scenes. Security guards did not wear cheap-looking imitation police caps; nor did they wear bright 'dayglow' jackets. You would see security guards around but they generally wouldn't bother you too much. No-one would ever ask you for ID as you walked to and from classes - though in my department (computing) it was common for security to do an ID card check in the computer lab every now and then to stop students from other departments using our superior facilities.

Now security is much more overt and visible, and it's beginning to get intrusive. Every student or staff member who walks into the Tanaka business school is confronted by a

STATE OF THE UNION



MUSTAFA ARIF
UNION PRESIDENT

less than friendly looking security guard requesting to see your swipe card. (You'd have thought that if this was really important someone would have at least installed a swipe card reader or barrier.) Aside from feeling sorry for the poor guard who has to stand there all day doing the most boring job imaginable, I wonder where this is all leading us.

I do appreciate that security needed a shake-up - there had been too many mumbblings about security guards failing to prevent thefts of property around College. And I do recognise that, particularly on the medical sites, there is a high degree of sensitive research that needs to

be secure. (I tested my swipe card on the door of the nuclear reactor centre at Silwood Park and was both disappointed and relieved when it failed to let me in.)

Yet there's something deeply unsettling about having to wear ID cards around your neck at all times and having to prove your identity before you attend a lecture. This is an academic institution, and one of the basic principles of academia is the freedom to explore the boundaries of knowledge. Draconian security practices do not, in my mind, engender the sort of culture in which academics and students feel 'free'. Their value is also questionable. Most major thefts happen out of hours when most buildings are on swipe access anyway.

Also, the College is now considering whether to make it compulsory for students to provide certification of vaccination against meningitis and mumps as a condition of entry. Other universities, such as Bristol, are considering the same. The intentions are well-minded (this year nearly 600 first years received meningitis vaccinations after term had started, leaving them vulnerable to an outbreak) and it is intended that there be some flexibility. Nevertheless there are some serious issues of civil liberties and medical ethics to consider here. Is it right that your university (or indeed anyone) should be able to force you

to take a vaccination in order to study? (Medics already have to take a hepatitis B jab for clinical practice, but that's because of patient contact.) Whatever you think about it, this is probably a breach of the Universal Declaration of Human Rights.

Upcoming legislation in the next few months and years may mean that the College is either required (or feels that it is required) to do security vetting of students before they can work in certain research areas. This could be sensible in some circumstances, such as protecting vivisectionists from more militant animal rights activists. A more likely reason for such legislation is that it would give the Government leverage over universities to prevent students from coming here to study things like nuclear physics because of their political beliefs or affiliations and nationality. Is it right for a university to be forced to restrict admission of students on that basis? How does this fit with academic freedom?

All these things trouble me. That's not to say that I wouldn't agree to any of them in particular. But the overall impact and culture they create is worrying, as is their wider implications. Our need for security is real, yet we should not be sacrificing our freedom. There are no quick answers, but I look forward to the debate.

Look after your pennies and the pounds will look after themselves

Your time at university should be enjoyable. Unfortunately these days it seems that to study at university you need to get into debt. This of course means that students need to be much more aware of their financial position and the money they are spending.

Especially at this time of year leading up to Christmas, money can be very tight among the student community, not just because some people like to spend money on presents for friends and families, but also because they can get a bit excited and spend their student loan very quickly.

Below are some dos and don'ts of debt, courtesy of the Union Advice Service.

Do...

Budget

The modern university experience requires excellent budgeting skills. Work out exactly what essential costs you have each month (rent, food, bills etc) and then divide what you have left into weekly amounts. Try taking that amount out at the start of the week and sticking to it, rather than making numerous trips to the cash point.

Choose your bank carefully

People are more likely to divorce than change banks, according to one old adage, so think carefully about who you choose to bank with. Don't be sucked in by free promotional offers when you open the account. Find out what the deal is for repaying that interest-free student overdraft; you may end up with a whacking interest rate the minute you leave your final exam.

Check everything you're entitled to. The Advice Service can tell you about your eligibility to apply for a hardship loan.

Work sensibly

90% of students are now forced to work during their course just to keep their heads above water. Think about when you are likely to be most busy with exams and essays and try to fit in more hours during the quieter periods.

Don't...

Think you're loaded

The first instalment of a student loan may look like a considerable amount of money. However, remember that this has to last you all term and once the essentials are taken

ADVICE SERVICE



NIGEL COOKE
STUDENT ADVISER

out it is clearly not a ticket to go on a spending spree.

Keep quiet about financial problems

Not everyone finds it easy to talk candidly about their financial situation. Do not bottle these problems up in the hope that they will go away - they won't. Speak to the Union Advice Service, who will be able to advise you on managing your money.

Spend money you don't have

Spending money you know you don't

have in your bank account is a very expensive way of solving any short-term problems. Many banks charge big fees for any unauthorised transaction. In some cases you could be paying a daily charge if you have gone over your limit, as well as administration costs of around £20 per letter should the bank decide to write and inform you of your misdemeanour.

Give into peer pressure

University is a fantastic experience and there is generally something going on 24 hours a day. However, when you cannot afford to do something, you cannot afford to do it. Don't accept loans from friends to fund an evening out - they may not be quite so friendly when you cannot pay them back.

Please be aware that if things get really bad and you have exhausted all areas of income, the College have the access to learning fund which you may be eligible for. Contact the student finance office in the Sherfield building for more information.

Remember, if you have any money worries at all, contact the Union Advice Service and we will be happy to help.

Contact the Advice Service on 020 7594 8060 or advice@ic.ac.uk, or pop in and see us in the Union offices in South Kensington - we are open from 9.30am until 5pm Monday to Friday.

Other useful contacts

Consumer Credit Counselling Service

Freephone 0800 1381111
(Mon-Fri 9am-5pm)

Credit Action Student Freephone Helpline

Telephone 0800 591 084
(Mon-Fri 8am-8pm)

National Consumer Council

20 Grosvenor Gardens, London SW1 0DH
Telephone 020 7730 3469

National Debtline

Telephone 08088 084 000
(Mon-Fri 9am-9pm and Sat 9.30am-1pm. There is a 24 hour voicemail service)

Website nationaldebtline.co.uk

Student Helpline

Telephone 0800 328 1813
(Mon-Fri 8am-8pm)

COMMENT

felix@ic.ac.uk

Stop the war on civil liberties

● **Colin Smith is the Welfare Campaigns Officer of Imperial College Union. However, this article consists of his own personal opinions and not necessarily those of Imperial College Union or of Felix**

As reported a year ago in the 5 December 2003 issue of *Felix*, and in many other newspapers, a member of Imperial College IT staff was arrested three days earlier in a 'counter-terrorist' operation. What is not known, and has not been reported, is what has happened since.

The member of staff was Babar Ahmad. He was born and raised in London. After obtaining a masters degree in engineering from Imperial, he went on to work in the Mechanical Engineering department.

At 5.50am on 2 December, Babar, a practising Muslim, was woken up by eight riot police who took him to Charing Cross police station. His friends and supporters believe that he was abused by police officers. After six days of interrogation,

Babar was released without charge – there was no evidence against him. Photographs taken in custody, as well as a more detailed look at the case, can be found at www.freebabarahmad.co.uk.

But the story doesn't end there. Babar was rearrested on 5 August this year, and is still being held in Woodhill Prison in Milton Keynes. He has been described by newspapers as 'Bin Laden's right hand man'. The allegations and evidence of his involvement with terrorism of any form amount to very little. One of the main pieces of evidence is a tourist brochure advertising the Empire State Building that was found in his house. This belongs to his father Ashfaq Ahmad, who visited the landmark in the 1970s and has the photographs and visa to prove it.

The evidence is in fact so flimsy that he cannot be tried in Britain. For this reason, he was arrested under an extradition warrant from the United States. New legislation, forced through by Home Secretary David Blunkett, means that the US



COLIN SMITH

can demand the extradition of a British citizen without evidence and on the basis of allegations alone. This is particularly worrying considering that the British legal system will now accept evidence given under torture (providing it has not been carried out by a British institution). All this in spite of the US's systematic human rights abuses of prisoners in Abu Ghraib, Guantanamo Bay, and elsewhere.

The case of Babar Ahmad is not an isolated one. Since 11 September 2001, the number of times Muslims

have been stopped and searched by police has risen dramatically, but only a tiny percentage of the hundreds arrested under anti-terror laws have actually been convicted. It seems that this racist victimisation and intimidation of Muslims is another face of the so-called 'war on terror' that is widely believed by people outside the current government to have actually made the world more susceptible to terrorism. In order to try to justify the other face of this permanent global war, the massacre of 100,000 people in Iraq (as reported recently in the respected medical journal *The Lancet*), the Government here is trying desperately to create a climate of fear where terrorists are constantly in our midst.

But this is not an issue that affects just Muslims. The stop and search figures for afro-carribeans have risen by 200% since 11 September 2001. And if our own Babar Ahmad is extradited to the US (a country with the death penalty, let us not forget), on the grounds that the British legal system is not as fair

or effective as the American one, then it sets a very dangerous precedent.

That is why it is vitally important that as many people from as many backgrounds as possible get involved with the campaign for Babar's release. He was a student and staff member here, and many people at Imperial knew him personally. We all need to rally together to defend our civil liberties, which are being eroded on almost a daily basis. The proposed introduction of compulsory ID cards is yet another aspect of this war on civil liberties which looks set to become a reality at sometime in the future. So, I would encourage everyone to join Babar's father, campaigning journalist Yvonne Ridley, and others, to launch this campaign at Imperial, in a meeting taking place tonight:

'Stop the War of Terror; Stop the War on Civil Liberties – Free Babar Ahmad', 6.00pm, tonight (Thursday 2 December), Sir Alexander Fleming Building, Lecture Theatre 1.

Today it is Babar Ahmad. Tomorrow it could be you.

Sameness



ANNA-MARIE LEVER

This summer I rediscovered a country where convenience has not driven out variety, a country where sameness is not the everyday norm.

I travelled to Sri Lanka and entered an unfamiliar world. This beautiful, intriguing and contrasting country – where the landscape changes from long yellow stretches of beaches with turquoise sea to arid dry cactus deserts and mountainous regions where people dress in woolly hats and jumpers – made me question the world I have become accustomed to.

My most memorable experience was visiting Kataragama, a unique pilgrimage site in Sri Lanka for Buddhists, Hindus and Muslims. Within an enclosed area, mosques and temples group together. Chanting, bells, drums and the Islamic call to prayer harmoniously fill the air. I found this particularly thought provoking with regard to today's social climate.

Sri Lanka's history is fascinating, with ancient monuments to rival those of Machu Picchu. These include King Kasyappa's fifth century AD palace on top of a 600ft rock. Entering this palace would have involved climbing up spiralling stairs carved into the rock and, at the top, stepping through the mouth of a huge statue lion. On top, one can see the huge throne where the King would have sat watching his 500 concubines drinking and dancing.

The Sri Lankans are exceptionally friendly and always smiling. Everyone wanted to say 'hello' and

one endearing girl asked, 'Do you mind if we speak English for a while please?' London Underground etiquette made me first ignore these questions, but gradually I learnt the virtue of conversation.

Inevitably I found myself back on the plane. Now, even the adverts of the in-flight magazine, where the cowboy rides across Marlboro country breathing in lungfuls of fresh air but not cigarette smoke, seemed ridiculous. Arriving at the airport, Starbucks' new campaign slogan encouraging consumer imagination, 'Be creative, choose your shot', seemed absurd for carbon-copy coffee shops with no individuality.

Countries all across the world are settling into the same. Body Shops and Hiltons are found in large numbers. Convenience has driven out variety. Which American mall doesn't have JC Penney, Radio Shack and Haagen Dazs? Which British high street doesn't have Marks and Spencer, Boots, WH Smith and Topshop? And when you come across these shops abroad, your first response is not a flash of pleasant recognition but a dull sense that you have not reached anywhere different at all.

There are only a handful of places on Earth where you can escape all this completely. To the extent of my knowledge, there is no McDonalds in Cuba and no Coca-Cola in Libya. In Sri Lanka, I only counted two McDonalds and one KFC, all in Colombo. At least in this country, for the time being, diversity and uniqueness are still present.

Sameness afflicts our lives, sometimes without us realizing it when we are absorbed in our daily routines. Invariably today's craziness for sameness will be transformed into tomorrow's rational order, which then will become a new and perfectly workable basis for society. Hopefully we will not forget the need for contrast and unpredictability. If you desire a fresh perspective, I recommend visiting Sri Lanka to celebrate and welcome difference and complexity.

Imperial College
London

Sign up now!

Why not get active in the community whilst you're at Imperial College London? It doesn't matter if you work or study in Imperial – volunteering will have always something to offer you! We have over 250 volunteering opportunities in our database, so there should be a project for you.

The easiest way to get regular updates about volunteering is by signing up to our mailing list. You will receive all the latest opportunities on a weekly basis, directly to your email inbox. Simply send us an email to volunteering@imperial.ac.uk, clearly stating that you want to receive the weekly news bulletin and we will do the rest!

Imperial Volunteer Centre



Linking opportunities

IN PARTNERSHIP WITH IMPERIAL COLLEGE UNION

Imperial Volunteer Centre
South Kensington campus
Union Building
Beit Quadrangle East Basement
Prince Consort Road
London SW7 2BB

Show mercy to animals? Who are we to decide?

Veer Singh responds to last week's Felix Science article on animal testing

Last week's article, 'Animal testing: a necessary or unnecessary evil', provides some useful information but, as usual, sees the issue from a myopic human perspective.

Animal testing and factory farming are just examples of our arrogance as human beings. We, for some nonsensical reason, declared ourselves the rulers of the Earth and therefore empowered ourselves with the choice of who lives and who is dispensable, of what is useful and what is not.

Perhaps religion is partly to blame for the misconception that the Earth was made for man. This attitude is largely responsible for the environmental problems we face today, as everything on Earth is assigned a value according to our 'needs'

and wants, despite our incapability to fully comprehend the complexity and beauty of nature. It is this same attitude that led us to conclude that humans are more important than other species and therefore it is alright for us to use them as test samples.

The article talks about intrinsic value. Do humans really have more 'intrinsic value'? Intrinsic value to whom? As far as I am concerned, the biggest danger that faces me is the human being. Perhaps the atrocities committed in the last century, those that continue to be committed today even by 'civilised' westerners, the slow and steady destruction of my habitat and more explain why.

The fact that humans have col-

lectively created enough weapons to destroy themselves 10 to 15 times over says something. On the contrary, the contribution of other species to the world we live in is immeasurable. Each living being, from the bees that pollinate our crops to the trees that clean the air, form an integral part of the ecosystem without which there would be no 'us'. Humans, on the other hand, have done nothing but progressively destroy the environment, which is perhaps more important than anything. It is all that we leave behind that is of any real importance. Without it, there can be nothing, no 'us' and no 'them'.

The fact that we even have to ask whether animal testing is traumatic for animals and whether they feel

much astounds me. It is common knowledge, and frankly open for everyone to observe, that other species have very strong bonds with their species and with nature, perhaps stronger than humans. They certainly don't make enemies as easily as we do. Also, their sensory powers are usually stronger than those of humans and they would therefore be adversely effected by an artificial laboratory environment. If you add to this the fact that they have no idea of what is being done to them or why, it makes you feel rather sick inside.

As far as alternatives are concerned, just test the products on humans. Human testing is necessary before a drug enters the market anyway; it is just cheaper, easier

and quicker to test drugs on animals first. The introduction of in vitro studies is perhaps another option. So what if we have to wait a bit longer? Maybe if drug companies like GlaxoSmithKline spent more time on useful drugs than on bogus fashionable drugs like Seroxat we would have more progress.

Perhaps this is stretching it, but is it not the same kind of indifference we show towards animals who don't look or talk or act like us that we show towards tens of thousands of people dying in a foreign land whose suffering is so easily put at the back of our minds? But when a comparatively insignificant number of our 'own' people die, we make a whole lot of noise. How much will it take for us to start thinking and feeling?




The Union encourages you to drink responsibly




£1 per pint Carlsberg or Tetley in dBs 'till the cellars run dry

Flirty

current chart music

and party classics

Cheeky

Wednesday, December 8

8pm - 1am

Union	£1.00
Ents Card	£.50
Guests	£1.00

Transport transformation

By Dave Arquati

My last article was about transport problems. This time, I'm writing about some changes.

The first change could affect every single student and staff member at Imperial's South Kensington campus. All London-based readers will know about the congestion charge, where motorists £5 per weekday to drive within a zone covering most of central London. The current western boundary runs down Edgware Road and Park Lane, but there are proposals to extend the zone to Earl's Court, putting Imperial inside the charging zone.

This has local businesses concerned about a decrease in passing trade. The only consolation for them at the moment is that studies of the central charging zone have indicated that, overall, there has only been a small effect on businesses.

But what does it mean for Imperial? Well, anyone driving a car to College would face a hefty bill. However, I doubt that applies to most people, as Imperial staff and students tend to walk, cycle, or catch the bus or tube.

If you use the tube, the proposed extension probably wouldn't affect you much, since the expected number of extra passengers is very small. However, there's good news for everyone else. Pedestrians and cyclists should experience a more pleasant environment as traffic volumes would decrease. Bus users would probably see the biggest benefits - reduced journey times thanks to reduced traffic, and higher frequencies and more routes as a result of the money made from charging (estimated to be an extra £10m).

Speaking of buses, you may have noticed the iconic old Routemaster buses going the way of the dodo. They are being replaced by more modern low floor buses, partly to comply with new regulations on

access for the disabled.

This means the retirement of the Routemaster in favour of modern double deckers or bendy buses. This has been very unpopular, especially given the spontaneous combustion of some bendy buses a few months ago. However, resistance seems to be futile, and the replacement of Routemasters on route 19 through Chelsea has been announced for April. All other Routemaster-operated routes are on death row, but many will be pleased that no execution date has been announced for South Kensington's route 14 yet.

My final word this time is on Oyster. Many of you use it, and, this being Imperial, some of you may even have wondered how it works. Basically, an Oyster reader induces a response in a card by using a certain radio frequency. What you may not have realised is that information on your season ticket or pre-pay, and on the recent journeys you have made, is stored on the card itself. This is the only way it can work on buses, which aren't connected to a central network except at depots.

Starting next year, for pre-pay users, this journey information will be used in a system known as 'capping', where you will only be charged up to a maximum daily fare. For example, if the cost of your bus journeys in a day exceeds the price of a bus pass, the amount you pay will be capped at the cost of the bus pass. It will work the same way for travelcards.

However, it won't be so easy to work out yourself - next year, there will be different bus fares for the morning peak, and lower tube fares in very early mornings, at evenings and at weekends. You'll just have to "trust thy Oyster".

● **Dave Arquati runs the website www.alwaystouchout.com and is a third year biochemistry student at Imperial College**

Fairtrade: what's it all about?

Imperial should become a Fairtrade University as soon as possible, says **Jamie Brothwell**

All it takes is a small change of habit. It's not hard. In fact, many of you will find it common sense. When you want to buy chocolate, coffee, tea, muesli etc, make sure that you buy the Fairtrade option.

That's it. No more thought required, no more effort on your part. Get into that habit and you can support a hugely important campaign having a wide-ranging impact upon third world farmers and their families.

Fairtrade is a simple idea, but with far-reaching consequences. When you buy normal coffee, the farmer who grew the coffee beans gets only a small fraction of what you pay. At the moment, a non-Fairtrade coffee farmer can expect to receive about £38 per 45kg bag of green coffee beans, whereas a farmer who is a member of the Fairtrade Organisation can expect about £68 per bag. A huge difference, you will agree.

Farmers join into cooperatives and sell directly to the supplier, effectively cutting out the middleman and greatly increasing the price they receive for their produce. This enables them to negotiate a fair price for their goods, which guarantees them a sustainable living and the support to develop their businesses.

When you buy goods with the Fairtrade logo on, you know that a good proportion of the price you pay will go directly to the producers.

The main issue now is creating a demand for Fairtrade goods. Fairtrade is the fastest growing segment of the UK coffee market, but there is still so far to go. By asking for the Fairtrade option next time you wander into Costa, you show your support for an ethical cuppa and put pressure on the coffee companies to move to Fairtrade status.

As well as buying Fairtrade pro-

duce, there is more than can be done to raise awareness and show support for the Fairtrade Movement. There is a campaign starting on campus to make Imperial a Fairtrade University.

A Fairtrade University is one that meets the five criteria set out below:

- First, the students' union and college create a Fairtrade policy incorporating the five aims
- Fairtrade foods are sold in all shops, cafés, restaurants and bars on campus. Where this isn't possible, there is a commitment to begin using Fairtrade foods as soon as possible
- Fairtrade foods (such as coffee and tea) are served at all meetings hosted by the College and the Union
- There is a commitment to campaign for increased consumption of Fairtrade goods on campus
- A Fairtrade Steering Group is

established, consisting of representatives from catering, the College, the Union executive, an appropriate students' union society and each associated institution.

Once these five aims have been realised, the Steering Group is responsible for sending a report to the Fairtrade Foundation for status to be awarded.

Not only would Fairtrade University status increase the levels of ethical consumption at Imperial and raise awareness of the issue, but it would help to establish the habit of Fairtrade purchasing in generations of young student consumers. It would set an example to other universities and gain Imperial the reputation of a university with a world view, able to look beyond the often insular world of science and the dubious clutches of the City.

There is a College Catering Review at the start of next term, which will provide an ideal opportu-

nity to change policy for the better. A petition will be starting next week around campus to support Fairtrade status. Please sign it.

In conjunction with the Chaplaincy, a stall will be up around campus providing more information, and tasters of Fairtrade goods and Fairtrade events around London will be advertised. The campaign is in its early stages, so if you would like to give your support, please send an email to imperialfairtrade-subscribe@yahoo.com to join the mailing list.

Even just an hour of your time to help with the petition will make a difference.

And finally, there is a Fairtrade Fair on 3 and 4 December at the Emmanuel Centre in Westminster. This will be a great opportunity for ethical Christmas present buying and to show that Christmas really does mean thinking about others, if you'll forgive the cheesy line.

Bring on the bins

Rebecca Slack argues that Imperial College should be at the forefront of a revolution in waste disposal

No-one can have failed to have noticed the increase in recycling facilities being offered to householders by their local councils. Orange sacks, green bags, black crates, green bins – a multicoloured cornucopia of waste disposal alternatives on your doorstep. There is even a newspaper bin outside South Kensington tube station! And, of course, there is a Government campaign to get us all recycling. But why this sudden interest in 'waste' and how does it affect life at Imperial?

You don't have to be *au fait* with environmental legislation to realise that things are afoot in the world of waste. The EU-initiated Landfill Directive requires increasing amounts of waste to be diverted away from landfill disposal, and new legislation affecting individual waste streams will soon be implemented. For example, the Waste Electrical and Electronic Equipment (WEEE) Directive will require the separate collection and treatment of all electrical equipment before disposal – or else fines will be issued if targets are not met. And this is just the beginning. Waste management can be expected to become increasingly more demanding, and conventional disposal to that hole in the ground increasingly costly. This will place an extra demand on any business budget.

There is a burgeoning market for recyclables – a ready raw material in a world of rapidly declining virgin raw materials. Some even pay for our unwanted materials! One used aluminium can has a resale value of 0.5p, whilst the market for used office quality paper is also considerable. New markets are also opening up for plastics and glass, and it wouldn't be surprising if funding was to become available for more intensive work in this field!

Of course, recycling waste products should not be viewed solely from the legislative/economic perspective, or as a potential resource

of research funding. The UK has seen a steady increase in the amount of municipal waste produced annually, despite disposal concerns. By reducing the amount we dispose in the general refuse bin, preferably through minimising the waste we produce or alternatively by reusing or recycling that which is produced, we reduce resource dissipation and diminish the 'ecological footprint' we leave.

So, where are the recycling facilities at Imperial – a centre of excellence for environmental research? That's the question an increasing number of people, both staff and students, are beginning to ask. As an institution at the cutting edge of a number of scientific disciplines, Imperial would be expected to be the first to adopt measures aimed at reducing environmental impact. Yet there seems to be some reluctance to assume a 'green' attitude.

It would be unfair to state that Imperial has made no attempt to divert waste away from landfill. There is a white paper recycling scheme operated at South Kensington, and the College has provided glass and can collection points at Beit and Southside. Some departments and buildings have chosen to operate their own recycling programme, usually through a separate collection of white paper. Cardboard is also separately collected for recycling and a battery collection scheme is being developed. There have also been occasional attempts in places to improve overall environmental performance, as demonstrated by the occasional energy efficiency sticker placed near a light switch! However, there is no comprehensive College-wide scheme, nor does one look likely in the immediate future.

One department, the Department of Environmental Sciences, is initiating a pilot scheme for the collection of recyclables such as paper, cans, glass, plastic, batteries, cardboard and printer toners. They are



"Imperial would be expected to be the first to adopt measures aimed at reducing environmental impact..."

also raising environmental awareness in general and are attempting to promote a culture of environmental conscientiousness. Not only are they aiming to inculcate an ideology of 'reduce, reuse, recycle', but a goal is to encourage general environmentalism: don't leave lights on, print on both sides of the paper, re-use your cup...

Such general awareness is also important in the context of the pilot recycling scheme. For it to work,

it requires everyone to participate and be aware of what can (and cannot) be disposed. For instance, a coke can thrown into a plastic-only bin spoils a collection and leads to landfill disposal of the whole load, as has happened with the Beit and Southside bins. Using the right bin is crucial to any recycling project. If the department's pilot is successful and creates enough interest across the College, perhaps encouragement for a wider scheme

can be generated.

As a rapidly acquisitive society, the UK has little time for waste issues. All this will have to change due to environmental contamination concerns and pressure from the EU, a change that is well overdue. Wouldn't it be better for Imperial to be at the vanguard of this waste revolution rather than be left behind with hefty fines and a poor record in corporate environmental responsibility?

Careers

felix@ic.ac.uk

Teach First and great things will surely follow

By **Cassandra Aldrich**
Careers Editor

When I first came across Teach First I didn't look into it any further. The word 'teach' switched off my curiosity, being something I've never considered doing, mainly because it seems that teachers get a fairly raw deal.

But the name of this scheme doesn't fully convey what it's all about. The more I read about it, the greater my disappointment that it wasn't around when I graduated – I'm stuck in the middle of a PhD and can't apply! It sounds an excellent programme that will potentially equip you to go anywhere you want in life. The website states: "Teach First unashamedly expects many of its participants to become the future Ministers, CEOs and serial entrepreneurs of our age".

The idea behind Teach First is to develop the leaders of the future. Two intensive years are spent teaching in secondary schools, while receiving leadership, management and business skills training. The list of Teach First supporters is impressive, including many of the big financial, IT, consultancy and law firms as well as Government and Civil Service offices and the main political parties. These supporters offer mentoring, networking and internship opportunities to participants.

If it sounds good so far then read the following article by the manager of graduate recruitment at Teach First, Angi Bhole.

Be different, make a difference

Teach First is a groundbreaking management development programme for high-calibre graduates. It combines leadership and business skills training with teaching in challenging London secondary schools. The aim is to transform exceptional graduates into inspiring leaders.

Based on a US idea, Teach First recruits graduates to enter a rewarding two-year programme in which they will train, qualify and work as teachers in some of London's most demanding schools.

Unique opportunity

The programme is successful because it delivers a unique career and leadership development opportunity, supported by over 70 of the UK's most prestigious employers. All these companies – public bodies, charities and government agencies – recognise and value the skills and experience developed in teaching.

Jo Owen, a former partner with Accenture and Capgemini, explains: "Future leaders learn early on the tough skills of managing people, leadership, initiative and entrepreneurialism. Teach First helps graduates gain these skills – skills for a lifetime that lead to the top."

Fast track to success

Participants benefit from a unique fast track into teaching. "You're right in there at the deep end – there's no wasted time," explains Susie Wooldridge, an Edinburgh

University English graduate. "It's the hardest thing I've ever done but I was well prepared and now that I've got through the first year I feel I could do anything."

The programme focuses exclusively on challenging schools and it takes a combination of commitment, self-belief, humour and energy to make progress. "Every lesson is a performance," says Edinburgh geography graduate Sam Dickinson. "It takes a lot out of you but at the end of one period you just have to let it go, reset the clock and go again."

Participants start teaching after just six weeks of intensive training at Canterbury Christ Church University College, England's leading teacher training institute. It's a steep learning curve but each participant receives ongoing coaching and mentoring from experienced teaching professionals. At the end of year one, successful participants achieve Qualified Teacher Status (QTS). So, whatever they decide to do immediately after Teach First, they can return to teaching at any point in the future.

Leadership training

In their second year, participants attend the Foundations of Leadership course. Teach First has drawn on the expertise and resources of its many supporters, along with the Tanaka Business School at Imperial College, to develop this innovative course, which combines skills training, internship and networking



Are you a future leader?

opportunities with mentoring by sector professionals. It builds to the Foundations of Leadership certificate.

Graduates are drawn to Teach First for a variety of reasons. Some find it a useful tool in helping them make their minds up about future direction; others know exactly what they want to do and feel that Teach First will give them an edge. Either way, the programme is an enormously rewarding experience and one that helps them discover their own potential.

Pedram Parasmand, a

Physics graduate from Imperial College, crystallises the experience: "When you know that you've got through to someone and helped them understand, it makes the hairs on the back of your neck stand up."

For further information and to apply online visit www.teachfirst.org.uk

Candidates are assessed as and when applications are received, therefore early application is recommended, and the final deadline is 18 March 2005. You'll need at

least a 2.1 in a subject that aligns with one of the National Curriculum subjects, and be prepared – the selection criteria are described as being "among the most rigorous of any employer, and ensure that Teach First participants are among the top 3% of graduates". This really is for the high flyers of tomorrow. Imperial students may have a slight advantage as Teach First are particularly interested in candidates able to teach science, maths and technology related subjects.

Careers events

Test yourself!

By **Gabriella Silvestri**
Careers Editor

Applications and interviews are only part of the story, unfortunately! There is much more involved in getting the job you want, and much depends on the company or organization you are applying for.

The first interview will focus on your knowledge and ability to do the job, together with your motivation. If you pass this stage, you may be offered the job or have to face a second interview or assessment centre, which may include making a presentation, doing aptitude or psychometric tests, and participating in group exercises or discussions.

Psychometric tests are big

in recruitment these days. More and more organizations are using these tests at a much earlier stage in the selection process, and they are carefully designed for the role for which you have applied.

The 'psycho-' bit in 'psychometric' could have some unpleasant connotations, but all it means is that the test assesses a characteristic that is something to do with psychology or how your brain works – usually some aspect of intelligence or personality. The '-metric' bit means that the test gives a measurement of the relevant characteristic(s), ie it gives a numerical score that tells you how much of it you have, or how you compare to other people.

There are two types – aptitude tests and personality questionnaires. Aptitude tests are designed to measure your intellectual capabilities for thinking and reasoning, particularly, your logical and analytical reasoning abilities. The most commonly used tests assess verbal and numerical logical reasoning skills.

In contrast, personality questionnaires are not timed, don't have 'right answers' and feel less like an exam. Personality questionnaires give more complex information and are interpreted by people who are specially trained to do this. Whenever these tests are used, the information they give should be put together with all the other information gathered about you – even employers

know that there is more to a person than a number!

Tests are used by many employers across most sectors, including IT, consultancy, many areas of the public sector, consumer goods and retail, banking, engineering and so on. Without practice, you will surely perform below your true potential. Don't assume you'll be OK just because you have maths A level. There are some practice questions below for starters. And practice questions usually appear with the letter that you receive inviting you to the testing process or on the company website. Be prepared... to challenge yourself!

VERBAL REASONING

This is a test of your skill

at making sense of reports that cannot be relied on to be objective, truthful or even consistent. The test consists of a series of short passages, each of which includes a number of short statements intended to convey information or persuade the reader of a point of view.

Each passage is accompanied by four statements relating to the information or arguments it contains. Assume that what is stated is true, even if it contradicts what you know or believe to be the case in reality. Decide on this assumption whether the statement is:

- a) true
- b) false
- c) you cannot tell and need more information.

● Goldman Sachs

Women's Network for 1st and penultimate year students
1st year students: 12 January 2005

Penultimate year students:
12-14 January 2005

Register by emailing diversity.wn@ln.email.gs.com, stating clearly year of study

● Insight into Finance and Business

Weds 8th Dec 2004, Excel Centre

Book online at www.crac.org.uk/finance

● ICI Business Course

13-15 December: Chemistry and Engineering

Find out more and apply online at www.icigraduates.com

CAREERS

felix@ic.ac.uk

In recent years it has become clear that man's use of fossil fuels is likely to have a major impact on the world's climate. As a result of this, increased concentrations of 'greenhouse' gases such as carbon dioxide and methane will lead to global warming; an overall small increase in average temperatures; whose impact is difficult to predict. Whilst some scientists predict melting of the polar icecaps, and so a rise in sea levels, others think this will be balanced by increased precipitation at the poles.

1. If we go on using fossil fuels at the present rate, we must expect climatic change.
TRUE / FALSE / CAN'T TELL

2. Depletion of the ozone layer will result in global warming.
TRUE / FALSE / CAN'T TELL

3. Scientists are all agreed that use of fossil fuels will eventually lead to a rise in sea levels.
TRUE / FALSE / CAN'T TELL

4. The burning of fossil fuels increases the concentration of methane in the atmosphere.
TRUE / FALSE / CAN'T TELL

Answers:
1 TRUE; 2 CAN'T TELL;
3 FALSE; 4 TRUE.

NUMERICAL REASONING

This is a test of your skill at reasoning with numbers. First you are given some information in a variety of forms – text, tables or graphs – followed by three related questions. For each question, choose what you think is the correct answer.

An insurance scheme pays benefits to its members who are sick for extended periods of time at the following rates:

1st month: nil
2nd-4th months: 50% of normal salary
5th and succeeding months: 25% of normal salary
on the first £24,000 p.a. of salary for each month in which the member is sick and is not paid by the employer.

How much does the scheme pay to:

1. John, who is off work for two months, whose salary is £12,000 p.a., and who gets no sick pay?

2. Pat, who is ill for six months, but who is paid normally for the first two months and whose salary is £18,000 p.a.?

3 Hilary, whose salary is £30,000 p.a., who gets three months' sick pay from her employer, and who has to take nine months off?

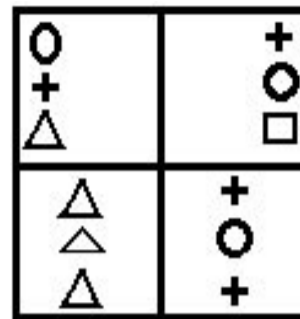
- A) £250
- B) £500
- C) £750
- D) £1000
- E) £1125
- F) £1500
- G) £1765
- H) £2125
- I) £2250
- J) £2350
- K) £2500
- L) £3125
- M) £3750
- N) £4000
- O) £5000
- P) £5625

Answers:

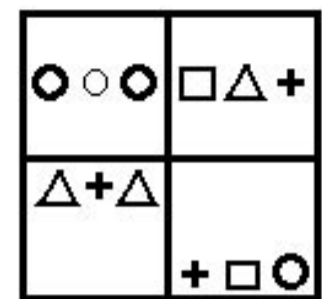
1. Answer B is correct. John gets £500 (one month at half his usual monthly salary)
2. Answer I is correct. Pat gets £2250 (three months at half her usual monthly salary)
3. Answer N is correct. Hilary gets £4000 (3 months at half of a monthly salary of £2000 plus 2 months at a quarter of a monthly salary of £2000)

ABSTRACT REASONING

This is a test of your skill at finding similarities and differences in groups of patterns. All the patterns in group A are in some way similar to each other, and all those in group B are similar to each other.



A

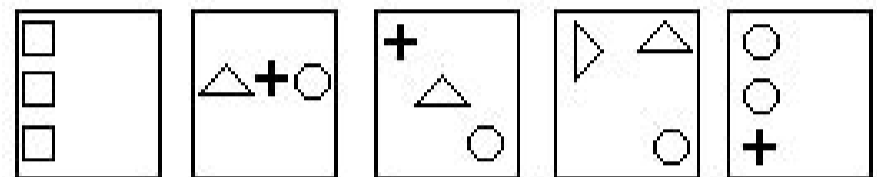


B

Below, you will find five separate boxes with patterns in them.

Your task is to decide if each box:

- i) belongs to group A
- ii) belongs to group B
- iii) belongs to neither group



Answers :

- First is in group A
- Second is in group B
- Third is in neither group
- Fourth is in neither group
- Fifth is in group A

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Clubs & Societies

felix@ic.ac.uk

Imperial takes national student radio award

IC RADIO

By Marnie Chesterton

Take one large venue with a free bar. Add the glitterati of the radio world: Jo Whiley, Steve Lamacq, Colin Murray. Add several hundred over-excited students from around the UK, and you have the Student Radio Awards.

The event took place last Friday night at the Shepherds Bush Pavilion in London. All the big music radio stations

were represented in a ceremony designed to work up a frenzied atmosphere. Steve Lamacq and Jo Whiley recreated their partnership from Radio 1's *Evening Session* as they hosted an evening of glitz and awards.

So why do you care? Well, our very own IC Radio was nominated within the category of Best Talk and News Show. Three of us who made the shortlisted show, *Mission Impossible*, were there and by the time our category came round, I had

my heart in my throat and my acceptance speech all worked out:

"I'd like to thank my parents, my lawyer, Jesus and all the 'little people' who made this possible, (pause for Gweneth Paltrow-style sobbing fit). This means more than you could ever realise..." etc, until they cut the power on the microphone.

"So, the nominations for Best Talk and News Show, sponsored by LBC." Above the stage, on the enormous white screen, our name

flashed up, one of six short-listed shows. The competition included Cambridge, Leeds and Sunderland, who all had a large posse to cheer when they were mentioned. In fact, the din was so loud that it was hard to hear the top three being read out.

Suddenly I caught a snippet, "and the silver award goes to *Mission Impossible*..." We cheered and hugged. Second. Second's not so bad. No podium glory, but 'award winning show' gets to go on the CV.

One of the most impressive aspects of the evening was the quantity of radio professionals who attended. I spoke to one of them XFM's John Kennedy, who hosts the 11pm-1am slot. He pointed out that student radio provides an important link to professional radio. "Everyone is here tonight because they love radio," he said.

Andy Parfitt, controller of Radio 1, expanded on this theme: "Student radio is an important source of talent. Many of Radio 1's DJs started

on student radio, the quality here has been incredibly high and I expect to see future presenters emerge from this pool," he exclaimed from the podium.

IC Radio won the gold award two years ago for speech radio, and this area seems to be our strength. The more students involved with IC Radio, the better we'll be, so check out www.icradio.com and find out how to get involved.

Fingers crossed for a tangible trophy next year.

Trees, horses and tents

FELLWANDERERS

By Matthew Warden

The almost 1000-year-old so called 'New' Forest was the destination for the latest Fellwanderers trip.

Its close proximity to London, and the fact that our driver, Alex, used to live there, ensured a happily uneventful trip down. In fact, we arrived in plenty of time for dinner at a rather fine pub/restaurant, the name of which I can't remember. We dined on pheasant, oxtail and all manner of tasty things. Alex even had time to pop home and say hi to his folks.

Feeling nicely nourished,

we set off to find the camp site, a task that proved too challenging for the combined efforts of the thirteen youthful pairs of eyes in the minibus. We twice drove past a rather large sign, with the word 'CAMPING' clearly emblazoned on it, and only managed to find it after parking almost directly in front of it and telephoning the owner, who helpfully came outside and waved at us.

After that excellent demonstration of our navigational skills, we pitched our tents and admired the wonderful view of the stars.

On Saturday we awoke to find frost on our tents. Well, I say 'awoke' – that implies that some amount of sleep-

ing was done... That oh-so-wonderful view of the stars, due to the total lack of cloud cover, meant that the night was rather chilly.

We ate breakfast under a clear sky, anxious to set off and warm our cold feet. Walking straight from the camp site, we made good progress thanks to good paths and the almost total lack of hills. The New Forest seemed to be teeming with life: we saw free roaming horses, ponies, horses with riders, pigs, deer, donkeys, dogs, pheasants and grouse.

We arrived back quite early, allowing for plenty of time to sit in the pub before dinner. This time we opted out of the posh food, discovering that

the bar menu was half the price for bigger portions.

We all slept much better on Saturday night. Prepared for the cold, we all wrapped up warm with plenty of layers of clothing. Next morning, Oliver's fantastic pen-knife thermometer read two degrees celsius.

Setting off, we encountered an impressively wobbly bridge, a very unimpressive castle (it was just a lump of earth), and more horses. There was a brief moment of excitement when we thought we'd lost Joana and Evelyne. The remains of a Roman villa turned out to be quite a disappointment. It was closed, and seemed to consist of nothing more than a couple of tarpau-



Imperial Fellwanderers explore the New Forest

lins draped across the ruins. We arrived back in time for everyone to have dinner at their own homes before get-

ting some much-needed sleep in more civilised temperatures than those encountered over the weekend.

Would you tolerate Jesus Christ if He was on earth today?

Christmas and the paradox of intolerance

CHRISTIAN UNION

By Victoria Pollock

Would you describe yourself as a tolerant person? Or do you have a limit to your tolerance? Do you, for example, tolerate the policies of George W Bush? What about Islamic terrorism? Or people with strong moral convictions? Would you go so far as to say that you even tolerate intolerance? Surely this is a paradox – we can't be intolerant of intolerance? Or can we?

The idea of "tolerance" has several meanings in the English language, but the definition I would like to consider is this: tolerance is "the capacity for or the practice of recognising or respecting the beliefs or practices of others". Conversely, in Webster's Revised Unabridged Dictionary, intolerance is "refusal to allow to others the enjoyment of their opinions, chosen modes of worship, and the like".

It strikes me that, by the very meaning of the word, we can't 'tolerate' anyone unless we disagree with them to begin with. We like and respect those who share our opinions and beliefs – there's nothing to put up with. Disagreement is in fact essential to tolerance.

This creates an interesting paradox. Our society tolerates most behaviour today, but not differing beliefs about those behaviours. If I disagree with someone or something, I am accused of being intolerant – yet this is what I need to do in order to exercise tolerance in the first instance.

Much of the demand for tolerance today is driven by the fact that society at large believes nothing and is uncomfortable with those who have strong convictions. As such, people often confuse intolerance with confident belief in an absolute truth. In fact, it is strong convictions and principles applying to humanity as a whole that society finds uncomfortable.

It is towards these beliefs, and those who hold them, that our all-tolerant society is most intolerant.

Many people see intolerance as synonymous with judging others. The tolerant person today is completely impartial: no judgments are allowed. In post-modernism, where there is no absolute truth, each person takes a neutral position on the convictions of others. Yet taking this to extremes means that everyone else is expected to hold the same neutral ground and no-one can take a stance that says others are wrong in any way. Therefore, trying to encompass such a wide array of ideas actually results in intolerance of anything that is different! Political philosopher Michael Oakshott summed this up when he said that we were a very tolerant people until we started to pursue tolerance as a definite objective.

One obvious example of this was when the French secular tradition was confirmed

by legislation which banned, in the words of President Jacques Chirac, any "ostentatious signs of religious proselytism, whatever the religion". This led to anger from, among many others, leaders of the Muslim, Jewish and Christian faiths.

Even Christmas must now be 'tolerant-friendly'. It was reported recently that the Eden Project in Cornwall had banned the word 'Christmas' – somewhat ironically for something that takes its name from the biblical account of creation. Although their marketing manager has responded saying, "Eden loves Christmas", their 'Time of Gifts' is designed to recognise all mid-winter festivals and be tolerant of everyone. However, in trying not to offend anyone, they in fact offend many Christians of this country, for whom Christmas is a very precious and special occasion. It is amazing – and for Christians, very sad – how unpopular the name of Jesus Christ has become.

Although we have no record of the actual date of His birth, many Christians around the world observe December 25 in honour of the birth of Jesus. Various traditions and images associated with Christmas, such as food, songs, gifts, stars and angels, originate from the earliest celebration of this event. Of course, the real issue is not the festival itself – Christianity is not about festivals – most people can easily tolerate Christmas as an event. Rather, it is the Christian belief in the significance of Jesus, which we as Christians keep at the front of our minds, that people cannot tolerate.

Christmas is the traditional time for us to remember a belief that affects everyone, and we celebrate it with particular and active intensity at this time. This belief is that that Jesus was God's supreme gift to the world. The world had been waiting for the promised Messiah – its Saviour and King. Christians believe that Jesus was that

person. He has come and is the unique Son of God.

So, would you be tolerant towards Jesus? If you want to know more about Jesus' exclusive claims and worldwide rescue, there is a fantastic opportunity for you to do so on Thursday 9 December. This is the date of our Carol Service. It is held in the Main Dining Hall of the Sherfield Building and will start at 6.30pm. It is a wonderful time and everyone is welcome. There will be carols, traditional and new, and a short talk presenting the significance of the message of Christmas. Refreshments will be provided and the atmosphere will be informal and relaxed. Contact cu@ic.ac.uk for more details. Please do come and join us: we are looking forward to meeting you there.

"... now we have heard for ourselves, and we know that this man really is the Saviour of the World"

[John 4:42b]

A Doll's House

DRAMSOC

By Samantha Gilbert

What's your biggest secret? What's the biggest lie you've ever told? What would you be willing to risk to stop it coming out?

In this term's Dramsoc play, that's exactly what Nora has to ask herself. How far will she go to stop her husband from finding out her secret? How can she hold her family together with a loan shark breathing down her neck?

Set in the 1880s, Henrik Ibsen's *A Doll's House* opens with the Helmer family joyfully preparing for Christmas. But the arrival of an old friend sets in motion a chain of events that threatens to change their lives forever. Childlike, flighty Nora has to search out a solution that keeps everyone happy but as the situation escalates and an answer seems harder and harder to find, she can see only one way out...

A Doll's House is one

of the cornerstones of modern drama. Paving the way for many of the playwrights you know today, it earned its author the title "the father of modern drama". It was so controversial when it was first published that Ibsen was forced to rewrite the ending, which, despite his vehement protests, was deemed too unsettling for contemporary audiences. Even now, over a century later, the play (with the original ending intact) still has the power to shock and delight. Deliciously acted by an extraordinary cast, *A Doll's House* is simply unmissable.

A Doll's House is showing in the Union Dining Hall from Wednesday 1 to Saturday 4 December. Tickets are available on the door at £4 for students and £6 others. You can book tickets online at www.dramsoc.org/tickets.

If you want to know more about the play, visit www.dramsoc.org or better still come and see what happens for yourself.



Some of the cast of this term's DramSoc play, *A Doll's House*

Featuring a 50 voice choir and
25 piece orchestral! Hot drinks and
fresh mince pies served free!

Emmanuel

The Christmas Carol Service
6.30pm Thursday 9th December
Main Dining Hall, Sherfield building
All welcome, free, and no ticket required
www.ic-carols.co.uk

What's on

felix@ic.ac.uk

THURSDAY 2 DECEMBER

HIV/AIDS WEEK PLAY

7pm
Tanaka Business School
£4
Perspectives on AIDS
Contact:
ramya.ramaswami@ic.ac.uk

UNION EVENTS DRAMSOC presents 'A DOLL'S HOUSE'

7.30pm
Union Concert Hall
£4 students, £6 others
To reserve tickets, visit www.dramsoc.org/tickets.

UNION EVENTS FILM NIGHT

8.30pm
Reynolds Bar, Charing Cross
Hospital
Come down to the Reynolds
to watch Shrek 2 on the big
screen with comfy sofas.
Contact: lucy.pickard@ic.ac.uk

FRIDAY 3 DECEMBER

UNION EVENTS DRAMSOC presents 'A DOLL'S HOUSE'

7.30pm
Union Concert Hall
£4 students, £6 others
To reserve tickets, visit www.dramsoc.org/tickets.

UNION EVENTS BATTLE OF THE BANDS

8pm-2am
Beit Quad
£3
With a special guest appearance from last year's winners Hoochie Co. Snakebite and black only £1 until cellars run dry.
Contact: union@ic.ac.uk

UNION EVENTS BANDS NIGHT IS BACK

8pm-2am
Reynolds Bar, Charing Cross
Hospital
£3 with free drinks
Celebrate end of fifth year exams, featuring old med-school bands and some new

freshers. Doors open at 8pm, open mic until 9.30pm.
Contact:
daniel.mcguinness@ic.ac.uk

SATURDAY 4 DECEMBER

UNION EVENTS DRAMSOC presents 'A DOLL'S HOUSE'

7.30pm
Union Concert Hall
£4 students, £6 others
To reserve tickets, visit www.dramsoc.org/tickets.

MONDAY 6 DECEMBER

CLUBS AND SOCIETIES MEDICS DRAMA AUDITIONS

Reynolds Bar, Charing Cross
Hospital
6.30pm onwards
Auditions for the main play, The Crucible, at Charing Cross. There are around 20

parts in total, six of them main. So whether you fancy a leading role or want to help with costumes, lighting, set or backstage, please come to the auditions.
Contact:
catherine.kirby@ic.ac.uk

UNION EVENTS COCKTAILS AND PALAIS

Reynolds Bar, Charing Cross
Hospital
New look Monday nights! Come down to Reynolds in Hammersmith every Monday night for cocktails and then get your wristbands to dance the night away at the Palais - £3 from the Reynolds, £4 on door. Yes, the Palais, it's back! Monday nights are now bigger and better than ever before.
Contact:
shumonta.quaderi@ic.ac.uk

TUESDAY 7 DECEMBER

CLUBS AND SOCIETIES MEDICS DRAMA AUDITIONS

Reynolds Bar, Charing Cross
Hospital
6.30pm onwards
Auditions for the main play, The Crucible, at Charing Cross. There are around 20 parts in total, six of them main. So whether you fancy a leading role or want to help with costumes, lighting, set or backstage, please come to the auditions.
Contact:
catherine.kirby@ic.ac.uk

UNION EVENTS STA TRAVEL QUIZ NIGHT

8-10.30pm
Beit Quad
FREE
The quiz is a bit of a tradition at the Union, with cash and beer prizes on offer. Get a team together and see how much you really know.
Contact: union@ic.ac.uk

WEDNESDAY 8 DECEMBER

CLUBS AND SOCIETIES MEDITERRANEAN SOC: SUNNY XMAS PARTY

Temple Pier
8pm
£3 members, £5 others
Free Drinks!

UNION EVENTS CHEEKY

8pm-1am
Beit Quad
£2
Flirty current chart music and party classics.
Contact: union@ic.ac.uk

UNION EVENTS CENTURION

Reynolds Bar, Charing Cross
Hospital
8pm
The return of the legendary drinking competition: 100 shots of beer in 100 minutes.
Contact:
joanne.hardwick@ic.ac.uk

THURSDAY 9 DECEMBER

VERY IMPORTANT FELIX PUBLISHED

10am onwards
Pick up the last issue of term from your department or the Union building.
Contact: felix@ic.ac.uk

CLUBS AND SOCIETIES MEDICS DRAMA AUDITIONS

Reynolds Bar, Charing Cross
Hospital
6.30pm onwards
Auditions for the main play, The Crucible, at Charing Cross. There are around 20 parts in total, six of them main. So whether you fancy a leading role or want to help with costumes, lighting, set or backstage, please come to the auditions.
Contact:
catherine.kirby@ic.ac.uk

UNION EVENTS COMEDY NETWORK

8pm
dBs, Beit Quad
£4
With Dan Antopolski.
Contact: union@ic.ac.uk

ALL WEEK

FILMS: VUE CINEMA, FULHAM BROADWAY

Student discount ALL WEEK
CHRISTMAS WITH THE KRANKS (PG)
Fri to Thurs: 12.50pm, 3.30pm, 5.45pm, 8.05pm. Sat and Sun only: 10.30am.

RIDING GIANTS (12A)
Fri to Thurs: 12.50pm, 3pm, 5.10pm, 7.30pm, 9.45pm. Fri and Sat only: 12midnight.

THE MERCHANT OF VENICE (PG)
Fri to Thurs: 2.30pm, 5.20pm, 8.10pm.

NAPOLEON DYNAMITE (PG)
Fri to Thurs: 2.50pm, 7.20pm. Fri and Sat only: 11pm.

THE INCREDIBLES (U)
Fri to Thurs: 12noon, 1pm, 2.40pm, 3.40pm, 5.30pm, 6.30pm, 8.30pm, 9.15pm. Fri and Sat only: 11.30pm. Sat and Sun only: 10.20am.

THE FORGOTTEN (12A)
Fri to Thurs: 4pm, 9pm. Fri and Sat only: 11.10pm. Sat and Sun only: 10.50am.

BEYOND THE SEA (12A)
Fri to Thurs: 12noon.

BRIDGET JONES: EDGE OF REASON (15)
Fri and Mon to Thurs: 12.40pm, 1.30pm, 3.20pm, 4.10pm, 6.10pm, 8.50pm. Sat and Sun only: 12.40pm, 3.20pm, 6.10pm, 8.50pm, 9.40pm. Fri and Sat only: 11.20pm. Fri, Mon and Tue only: 9.40pm.

AFTER THE SUNSET (12)
Fri to Thurs: 12.30pm, 5pm, 9.30pm. Fri and Sat only: 11.50pm.

THE MANCHURIAN CANDIDATE (15)
Fri to Thurs: 1.10pm, 6.15pm.

SHARK TALE (PG)
Sat and Sun only: 10.40am.

THE GRUDGE (15)
Fri and Sat only: 10.30pm.

The Comedy Network presents Triple Perrier Award Nominee Dan Antopolski

Since winning the BBC New Comedy Award in 1998, Dan Antopolski has quickly built himself a reputation for being one of the most inventive, intelligent, edgy and unusual comics to emerge in years. Dan's quick witted mind and surreal flights of fancy have delighted both critics and comedy audiences alike. His Perrier Award nomination at the Edinburgh Festival 2001 followed a Perrier Best Newcomer Award nomination in 2000, and he also received critical acclaim for his part in the Perrier Award nominated Lee Mack's New Bits at the Edinburgh Festival 2000.

Dan's other television credits include appearances on two series of The Stand Up Show (BBC1), How To Survive (BBC Choice), Cherry Pop (UK Play) and The Perrier Awards (Channel 4). He recently travelled to Melbourne to appear in The World Comedy Series, which will be screened on The Paramount Comedy Channel in the UK.

"Clever, observant and a slightly rude comedian. Three times Perrier Award Nominee and a member of The Dinks, a comedy trio. 'One step beyond the best of the mainstream.'"
- The Times

"Undeniably the most imaginative comedian on display"
- Time Out

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Imperial College Union
Beit Quad



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- a brief description of the event
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Day out in London

felix@ic.ac.uk

Notting Hill

By Zaina Nobeebux

Are you a night owl and struggling to find something to do during the daytime? Are you a fresher who knows very little about London, trying to figure out where to explore next? Or are you one of those people who never get out of their rooms and have suddenly decided to make the most of their time in London before they graduate? If you answered yes to any of those, this article should be the perfect source of inspiration and ideas for you!

Well, anybody smart enough to read the title of an article before the actual text should know by now that I shall be telling you about the Notting Hill area. Notting Hill... the name of this place should strike a bell in the mind of almost everyone in Imperial College, not only because you'll have spotted it on the tube map, but also because it has hosted the movie with Hugh Grant and Julia Roberts, an absolute must on Valentine's Day to make you all sappy and romantic (maybe).

But let's get back to the point, or rather to the place, before I start ranting about the merits and faults of a movie. I shall assume that all of you are normal students and youngsters who never get up before, say, 10am during the weekends. So, for all of you who live south of Notting Hill, I would suggest you have lunch in Holland Park, and why not spend a lazy morning in the sun (whenever there is some) before going to conquer the next place.

Holland Park has the advantage of having plentiful benches and places to sit (excluding grass), as opposed to many other parks. A walk through this park comprises delightful water features as well as a Japanese garden with a pond, its waters being very dense with colourful fish making a good contrast with the dark bed. This leads to a little wood in the middle, and finally towards the other end of the park. And if you

techies are lucky enough through your meanderings in the woods, you may find yourself next to the solar dial, then onto Holland Park Road leading to an electric bike shop. Ladies, this is where we find our men deeply engrossed in window shopping. Just a note for cyclists, there is a bike track on the side of Holland Park with a steep slope, so you can just whiz through the park without bothering with the walk.

After a further five to ten minutes walk, you should find yourself next to Notting Hill Gate tube station. Once there, don't panic if you can't find signs leading to the legendary Portobello market. If you are there on a Saturday, just follow the masses of people! Otherwise, if you just go down Pembridge Road for a couple of minutes, you should find yourself on Portobello Road leading to the market.

But before I proceed to the market, I would like to mention that there are other things in the area which are worth looking at during the daytime (excluding the common 'normal' shops which can be found on any high street). Notting Hill is the haven for shops selling anything 'ancient', including antiques, retro and vintage. In fact, around the tube station are various retro clothes and book 'buy, trade and sell' shops. One of them is called 'Book and Comic Exchange'. I'm not a comic book fan, which explains why I never went into that very old and cluttered looking bookshop with rock music blasting, but curiosity and the magnetism of books got the better of me in the end, and I must admit that I was pleasantly surprised by the variety of second hand books there. On the shelves nearer to the door are classic books ranging from Austen's *Emma* to Tolstoy's *War and Peace*, with a whole shelf labelled "Charles Dickens arse chickens" especially reserved for Dickens's work. Other bookshelves contain a vast array of books labelled literature, cult, phi-



"Art Deco is a decorative antique shop selling unusual arty furniture..."

losophy, psychology, art, photography and architecture. Comic books are found in the middle section, their prices ranging between 50p to £4, and there is even a section labelled "really boring books" to suit all tastes!

All along Pembridge Road are a variety of unusual shops including an art shop, a vintage shop, lots of antiques shops as well as a shop selling bits and bobs of African design, leading to the first stalls of the market. That Saturday, a salesgirl was running around trying to get some spidery piece of metal on every passer-by's head to promote that product, which at first sight reminded me of a torturing device. After a lot of convincing and coaxing, coupled with the signs "Head Ecstasy and Orgasmic Experience", she managed to get some guinea

pigs to experiment it. They seemed to like it...

Of course, once one reaches the main bit of the market, one is normally overwhelmed by the variety of things for sale at different stalls, which are mainly related to antiques on this side of the market. These include antique bottles, jewellery, pottery, clocks, silverware, cameras and optical instruments, dinky toys, coins, as well as fine art prints, metal stamps, handmade soap, laminated posters, silk scarves and CDs at bargain prices. The main market hosts smaller "sub-markets" with similar types of stalls. One of them specialises in Russian dolls, with the most impressive set being made of 29 dolls ranging from about 40cm to 5mm in height (I counted them and I'm not exaggerating!)

One of my favourite bits is an alley branching from Portobello Road and containing a few stalls only. They sell mainly old rusty military objects (nothing comparable to the posh Michael German of Kensington Church Street): hats from the RAF, police or Russian army, army boots as well as old dusty pieces of armoury such as metal body armours and swords would delight almost anyone.

The next bit of the market is the food section, which is full of fresh vegetables, herbs and exotic fruits, like fresh dates, yam, cassava and what appeared to me to be white pears also known as Chinese pears, as dutifully corrected by the fruit seller. Other stalls there are a spice stall bursting with the aroma of spices from the four corners of the world, bread stalls for pastry lovers, and some sweet stalls. Also present are trailers selling German and Thai food and hot dogs since by then every student would be feeling peckish.

Portobello Road is not just about the market, but also the shops on both sides, often hidden by the stalls, but nonetheless very interesting

and definitely worth a visit. Jessie Western, as the name suggests, specialises in western clothes, jewellery and mainly cowboy hats and boots made of buffalo, frog, ostrich and even lizard leather! An antique sports shop sells antique brown footballs and cricket balls, golf clubs, trophies, and boxing gloves. Art Deco is a decorative antique shop selling unusual arty furniture, some pieces looking like those featured in movies. One of them is a sofa in the shape of a boot, which I found creative, and examined in awe for so long that the salesman grew suspicious and looked like he wanted to throw me out.

Muslim students will be glad to know that there is a halal butcher in one of the shops near the food section, and since we are on the topic of choices on food, vegetarians will find it useful to know that The Grain Shop does some vegan, but mainly vegetarian food like flapjacks, couscous, moussaka and bakes for take away. I'm sure most Spaniards here know about Garcia, the Spanish shop, selling, well, lots of Spanish food like Arborio rice, pickled peppers and olives, tortillas, whole hams (chorizo, picanté mortadella) and cheap wine. I also came across a cacti and bonsai shop by the flyover near Ladbroke Grove. For those of you who would like to dine out, Babes and Burgers is the place to go if you like burgers, and Thai Rice offers a main meal for about £5.

It is worth noting that the market does not stop at the flyover, but goes on until Golborne Road which is full of Moroccan shops for those of you who have plenty of time to spare.

I hope that I have illuminated those who have never been to the Notting Hill area and inspire them to go there once. For those of you who have been there numerous times and have different views, I'll just say that I've highlighted what I enjoyed the most there.



"One of my favourite bits is stalls selling old rusty military objects..."

Nightlife

clubs.felix@ic.ac.uk

Interview: Steve Lawler

The DJ took some time out from his hectic schedule to chat to **Nichola Jahn** about his music and lifestyle from his hotel room in New York

Felix: How come you're in New York at the moment?

Steve: I'm at the end of my Americas tour at the moment. I started in Canada and worked my way down America to Mexico. I'm currently building up for my final gig where I'm doing a ten hour set with Danny Tenaglia [for the MADE Event and Be Yourself party at the club Roxy, in New York]. It's been really hectic recently.

How do you think the London club scene compares to the rest of the world?

I don't really get much time in London except at my own night, Harlem Nights at The End. Although it's one of the smallest parties I play it's the one I'm the most proud of. I built that night up myself and it is one of my favourites to play. There is a regular crowd, it's steady and it's a good night.

"Long sets are good when there's a good vibe... I could play for 15 hours if the night was going well!"

Do you enjoy your marathon sets there?

Long sets are good when there's a good vibe. When the music's great and the crowd's loving it, you are at the helm of that and I could play for 15 hours if the night was going well!

When you're not DJing, how do you chill out?

I love movies and directors, and I chill out by drawing the curtains and taking some time to myself with a film and a smoke. When I'm not doing that, I'm in the studio making songs. I recently remixed Dido's *Sand In My Shoes* and it's currently number one in the US Billboard Dance Chart. I also recently remixed the club anthem *I Can't Explain* by Bombdog. It was tough to remix because it was such a big original. I supported it and played it lots though so I wanted to remix it.

What are your best memories of a night spent in London?

There have been a couple of good ones this year: there was a night in October this year which was phenomenal with 300 people still trying to get in at 3am! It was crazy! Another good night was the second birthday of Harlem Nights which was an awesome party. I play to crowds of 1000 to 20,000 people but the best nights are the ones where

the crowd are really into the music, which is why I love doing Harlem Nights.

Do you have any 'insider tips' for clubbers at the moment?

Argentina definitely has the best crowd reaction; they really know how to party there. Another of my favourite places is Romania, on the Black Sea Coast – there is a great crowd and an awesome sound system.

So how do you usually get around to all these places?

Well I'm based mainly in Miami, Ibiza and Birmingham and travelling between places is tough. I live in Ibiza during the summer months and have a house in Birmingham. Even though I make about four flights a week, I really don't like flying. Airports are terrible places.

So in an ideal world how would you like to get around?

Teleport! One minute you could be in Rome, then America, and then India at the touch of a button! More seriously, private jets are best because you can even smoke on board.

Ok, some quick fire questions now: sightseeing or the arts?

Sightseeing, definitely.

Chinese or curry?

Chinese

Haagen Dazs or Ben & Jerry's?

Haagen Dazs

If you see street performers, do you stop and watch or walk on by?

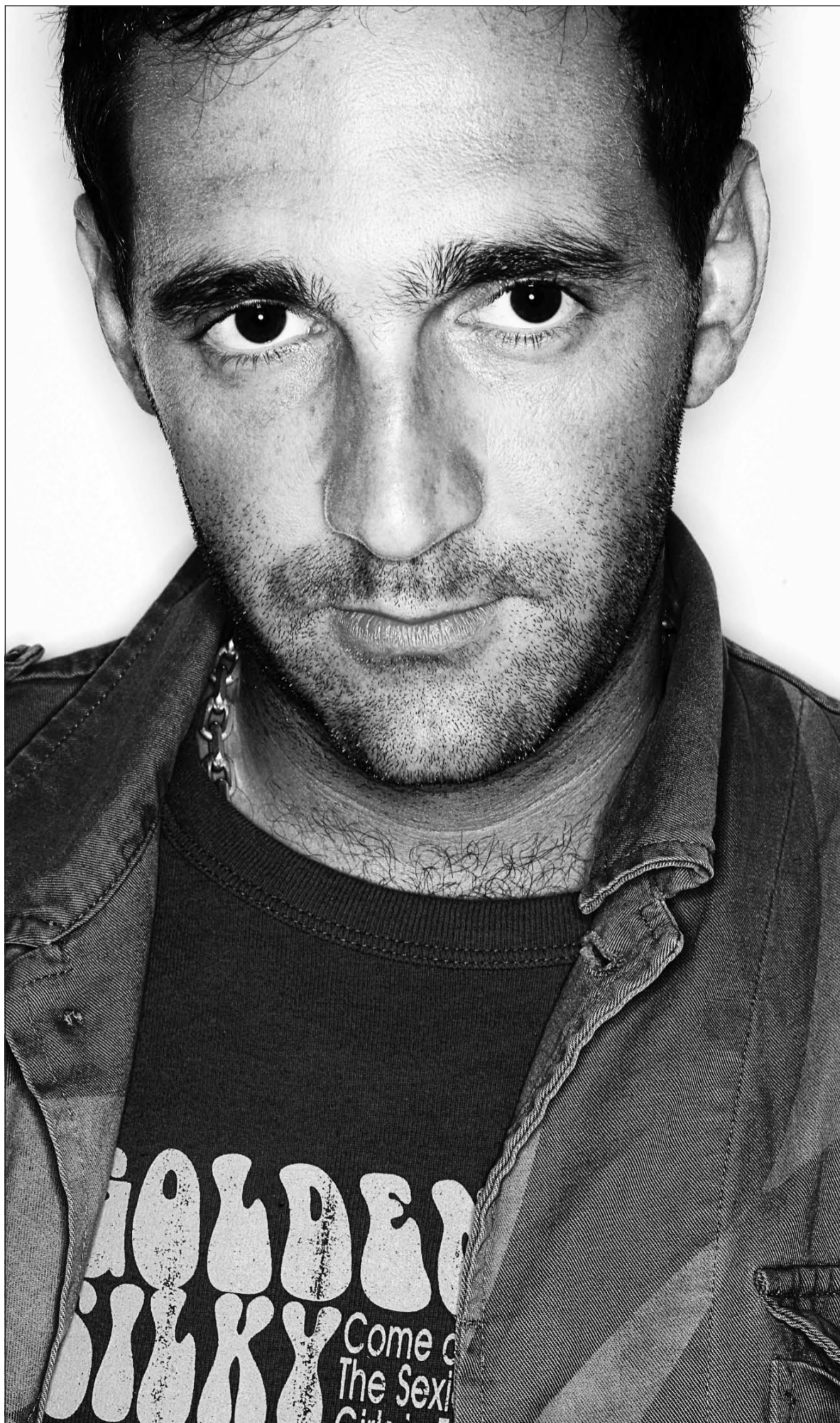
Stop and watch! There are lots of street performers in New York.

And finally, do you have any tips for students who want to get into DJing?

There are two things you can do, the first is get into production. If you make good tracks, people will listen. A good example is Nick Fantuli – he produced a lot of good music and eventually had to be recognised as a good DJ with all of the support he had.

The second way is to run your own night that survives on the strength of itself, not DJs you bring in – something that is a good party in its own right.

● Visit Steve's website at www.djstevelawler.com, or visit www.endclub.com for more information on Harlem Nights



Steve Lawler: catch him at Harlem Nights at The End

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Arts

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You can do all that on a trombone?

We review the ICSO concert so you know what you missed out on

Imperial College Symphony Orchestra

Friday 26 November
Great Hall

Berlioz, Sibelius, Larsson, Tchaikovsky

Did you go to the ICSO concert last Friday? Those of you who did I'm sure will agree with me that it was a very enjoyable evening. For those of you who didn't, here's the review of what you missed. And for those of you who are already well and truly lost: ICSO stands for 'Imperial College Symphony Orchestra'.

The programme was as follows: Berlioz *Roman Carnival Overture*; Sibelius *Finlandia*; Larsson *Concertino for Trombone*; and Tchaikovsky *Symphony No.6*. After a brief moment of 'tisk tisking' from general public and the orchestra as someone's phone started buzzing, the concert got underway with the bright and exuberant Berlioz.

The Berlioz was well executed and served as a good introduction to the evening's concert. The *Roman Carnival Overture* was originally written as the overture to a rather unsuccessful opera but has thankfully survived. The piece is upbeat and enjoyable, opening with a beautiful cor anglais solo played by

Charles Craddock.

The Berlioz was followed by two pieces by Nordic composers, Sibelius and Larsson. Quite possibly Finland's most well known export, Sibelius is the composer of some highly emotive music. I'll be completely frank and admit that Sibelius really isn't one of my favourite composers – his works are quite often that little bit too emotive for my tastes and scored in such a way that more often than not result in my turning a lovely shade of greenish grey and reaching for the Panadol. However, the work played by ICSO, *Finlandia*, was wonderfully dark and brooding and played to perfection; it almost made me want to give Sibelius another chance. The expression of nationalistic sentiments of the composer and the people of Finland at a time when the country was under the control of Russia, *Finlandia* is a gloriously grand tone poem.

Hands up those of you familiar with the works of Larsson. As I expected, not many. Larsson, 1908–1986, is a Swedish composer whose work was influenced by, among others, Sibelius. The *Concertino for Trombone* is a true showpiece for the soloist, in this instance Douglas Murdoch, who covered himself in

glory playing music of astounding complexity. Apologies to all trombonists out there, but I had no idea what the instrument was capable of!

Following a brief interval, ICSO rearranged themselves once more to embark on the concert's grand finale, Tchaikovsky's *Symphony No.6 'Pathétique'* in B minor. Not a joyous and triumphant work, the Tchaikovsky is singularly beautiful and melancholy. Elegant, as all of Tchaikovsky's works are, the symphony was done complete justice by ICSO's players, the brass in particu-

"It was loud! We kicked ass"

An ICSO string player, who wishes to remain anonymous, on the first half

lar shining. The fortes were booming, the crescendos were sweeping, the decrescendos and pianos heart-breaking.

The conducting of Richard Dickins was as full of energy as usual and raised quite a few comments of concern from my companions for both his safety and that of the assorted pieces of sound equipment in the vicinity. ICSO really did themselves



ICSO on tour in Paris. The ever bouncy Richard Dickins is in the centre

proud with this concert, as was patently evident by the stupendously low level of coughing and sneezing for the time of year. I realise that this is something of a useless comment, but it was about time that the squeaky green stool the timpani player was perched on was replaced, so well done to the person who took care of that – now we can all enjoy

concerts without those occasional unpleasant squeaks.

The quality of the concert was extremely high, the repertoire enlightening and extremely enjoyable. Those of you who didn't go really missed out on this tour de force by ICSO.

Paola Smith
Arts Editor

Multitalented medics

Melissa Parkinson reviews the ICSM concert just in case you missed that too

Imperial College School of Medicine Orchestra

Saturday 27 November

St Augustine's Church, Queens Gate
Saint-Saens, Mendelssohn,
Tchaikovsky

The closest I have ever been to being 'musical' was playing the recorder in my school concert aged 13, and that wasn't even classical. So I'm writing this review in the eyes of a non-musician, someone who was there simply to watch their friends play and enjoy the music.

St Augustine's Church is an amazing venue, and the music filled it. The Imperial College School of Medicine (ICSM) Orchestra looked the part in their matching black outfits and I knew we would be in for a treat. Matt Whitaker conducted the orchestra and this ambitious programme. This is his second year conducting them, and it was obvious that he was enjoying the performance.

Danse Macabre by Saint-Saens was the first piece to be played. Any other non-musicians will know this as the theme tune to Jonathan Creek. However, *Danse Macabre* played by the ICSM Orchestra in a magnificent church made the music sound 100 times better than on the telly. It was an incredible first piece and it sent shivers running down my spine.

Danse Macabre is one of four symphonic poems. It is an example of the exotic, descriptive and dramatic works written by Saint-Saens, a French pianist and composer. He was hailed as the world's greatest organist by Gounod, Rossini, Berlioz and Listz. Zoe Little was the soloist in this piece, and she excelled in her part on the violin. *Danse Macabre* is a fantastic piece and the orchestra did it justice.

Mendelssohn's *Violin Concerto in E minor* gave an end to the first half of music. This was a elegant piece with a large focus on the soloist Olivia Shields, a second year medic who began her violin career at the age of four and was a finalist in The National Schools Chamber Music Competition. She led the symphony orchestra for two successive years at St Paul's Girls' School and studies with Rodney Friend at the Royal College of Music. She is amazing. This piece is very challenging for the soloist as it contains an undercurrent of agitated semiquavers. But I could see no faults in her or the orchestra's performance. It was a lovely piece to listen to.

After the interval of wine and orange juice, we listened to Tchaikovsky's *Symphony No.5*, composed in the summer of 1888. In this excellent final piece, the clarinets gave a low and sombre theme. Tchaikovsky transforms his fate theme into a triumphant march

and a happy ending. It was an epic expression of music and energy, a sound ending to the concert.

The medics put on an excellent display of music, and Zoe and Olivia's solos gave a particular sparkle to the performance. I was literally gobsmacked when they played. How does someone do a medicine degree and manage to be that good? It's outstanding. Matthew kept the orchestra together, and that's a large task. I enjoyed watching them play as much as they enjoyed playing it, judging by the

size of the smiles on their faces. Everyone must go to their next concert in the spring, I sincerely recommend it.

● Despite Imperial being a science college, the arts are well and truly alive here. This week's reviews should have given you just a bit of a taster of what goes on, and there is plenty more to come as well.

Keeping with music, the choir have a concert next Friday and

Sinfonietta have one the following Tuesday, both in the Great Hall.

For those of you not feeling suicidal enough with unreasonable amounts of work, DramSoc's production of Ibsen's *A Doll's House* ends on Saturday.

If you didn't join an arts society this term don't worry, they'll still take you, in general, next term. So get involved, and don't forget that the Arts Festival will be here next term.



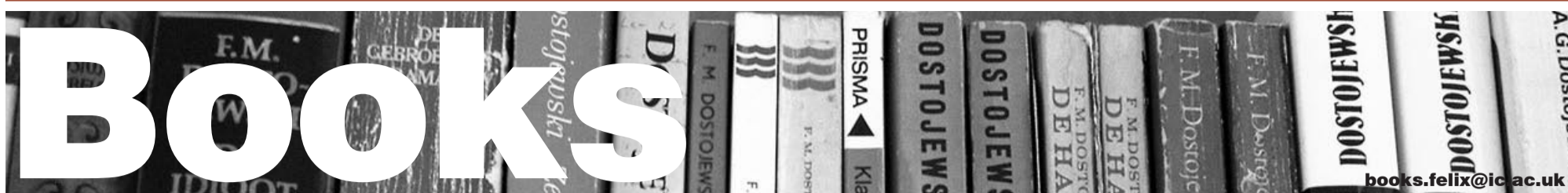
ICSM conductor and soloist post performance on Saturday.
Photo by Stan Hadjivassilev

Competition winners

The winners of the *Blithe Spirit* tickets are:

Thomas Cafferkey
Alice Fleming
Rene Lavanchy
Hamideh Razavi
John Stewart

Could they please contact arts.felix@ic.ac.uk for information on how to claim their prizes



Cowboy seeks huge black erection

Don your stetsons, strap on your six-guns and go questing for *The Dark Tower* with **Oliver Finn**

The Dark Tower

by Stephen King
(Donald M Grant Publishing)
★★★★☆

'Childe Roland to the dark tower came' – Robert Browning (1855)

These were the words of a narrative poem that inspired Stephen King to begin his longest and arguably best work.

The *Dark Tower* series consists of seven parts. The first was written in 1982 and then for several years the series lay abandoned, before being continued at a slow rate until the late nineties. Readers who had travelled with the characters were left waiting at several points. In the last few years, Stephen King has completed the series, with the last two volumes being published this year.

The final instalment, *The Dark Tower*, was released this autumn. Unfortunately for us poor students, this means that the last few books are only available in hardback at the moment. However, the hardback versions are very beautiful things, with colour plates scattered at various points throughout the books.

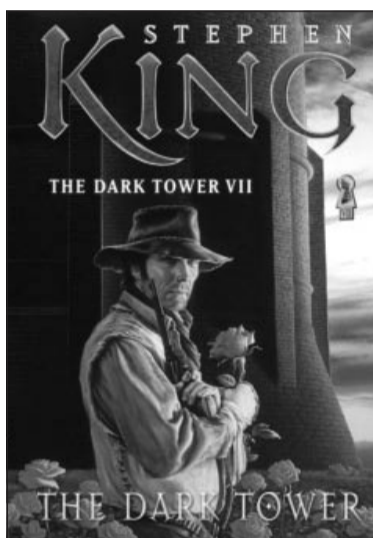
The series is an epic fantasy adventure in a similar style to *The Lord of the Rings*, but with different atmospheres and characters. The first character we meet is Roland,

the last gunslinger, the lone gunman, duster flapping in the wind as he comes into town from the desert like Clint Eastwood in *High Plains Drifter*, revolvers at his hips. At the same time, he is a noble and the last of a royal line, part Arthurian knight, part diplomat and when necessary, all cold-eyed killer.

The characters weave in and out of post-apocalyptic landscapes (due to 'the world moving on'), classic spaghetti western scenes and twisted versions of legends and fairytales as they pass through environments that could be taken from Stephen King's other books and which, as the story progresses, actually are.

Having read quite a lot of King's work, I can easily imagine Roland and his companions, Eddie the reformed junkie, Susanna, Jake and Oy (the talking Billy Bumbler – a kind of dog) appearing in the background of his other stories, especially ones like *The Stand*, and this is one of the reasons for the gap in the series.

Stephen King was in some way writing of Roland's world whilst he wrote all of the rest of his books. They all fit in somewhere to the mythology and world that the *Dark Tower* series is set in, some with more relevance than others. I have sometimes been disappointed with the endings of King's books, but as he says himself in one of the many



epilogues, this is perhaps because he lost track of the character in this particular story as the character has moved on into the *Dark Tower* series. Thankfully, after wading through the thousands of pages of this series, I was not disappointed with the finale.

Roland's quest is for the dark tower, the hub of existence, at the centre of all worlds. He believes that on reaching the tower he will be able to prevent 'the decay of worlds', to prevent the rest of the worlds moving on and decaying like his own did through war, plague and loss of knowledge. But that is not the main

reason for the quest: just as one of Roland's companions is a heroin addict, Roland is a 'Tower Junkie', driven to get to the tower, leaving a trail of bodies of both friends and enemies in his relentless and dogged pursuit of his goal through time and space.

You may be familiar with the concept of alternate realities, either through quantum theory or (perhaps just as likely at Imperial) through movies such as Jet Li's *The One*. In these different times and places, the heroes encounter modern day New York as well as other worlds eerily similar to our own. The villains of the piece are a varied cast: a sinister man in black whom Roland is pursuing from the outset of the first book and the master villain, the Crimson King, as well as vampires, robots, evil magic users, insane AIs and post-apocalyptic survivors such as those found in *Mad Max* and the Mafia.

The series starts with the stories of each of Roland's companions as he draws them from their own place and time in our world. At the same time Roland's own history develops in flashbacks and tales told by the gunslinger himself. One book, *Wizard and Glass* (the fourth in the series) is almost entirely devoted to this angle.

The books make gripping reading, and, if nothing else, the series is a page-turner. I am glad I waited until

the last books were released before I began reading: the wait of a week or so between getting hold of books is bad enough, so I can't imagine what the initial fans went through, having to wait the better part of two decades for their next tale.

The books are typical Stephen King: in some cases needlessly and crassly sexually explicit, in others a little too weird, stretching the imagination of even a willing reader.

One very refreshing thing is that however attached you are to the characters, you know that any of them might fall by the wayside, and this helps remove the kind of 'the hero is invincible' sense that some fantasy fiction books have. It makes the story more 'realistic', if such a word can be applied to this undoubtedly odd tale, as well as creating suspense.

These books were responsible for several late nights as I was unable to turn the light out and sleep – I just had to know what came next. Perhaps not classic literature, but they are a very good read.

- The *Dark Tower* series consists of:
 - The Gunslinger* (1982)
 - The Drawing of the Three* (1987)
 - The Waste Lands* (1991)
 - Wizard and Glass* (1997)
 - Wolves of the Calla* (2003)
 - Song of Susannah* (2004)
 - The Dark Tower* (2004)

Bookshops hit by Big Bang

Big Bang

by Simon Singh
(Simon & Schuster)
★★★★☆

"The most important discovery of all time" is the claim Simon Singh makes of the Big Bang (also known as the HSK model). Indeed, it is hard to think of many scientific discoveries more fundamental than the theory of the beginning of everything. Does the book, however, live up to its explosive title?

Big Bang is very cleverly structured, running backwards and forwards through time simultaneously (although, there is no such thing as simultaneity, of course). Singh starts with the ancients' studies of the earth, moves on to the understanding of the sun-centred solar system in the renaissance, through to the discovery of galaxies outside our own in the 20th century, and then to quasars. As time passes, astronomers have been able to see further and further away and, due to the finite nature of the speed of light, further into the past. Hence, Singh describes mankind's probing further and further into the past, reaching, inevitably, the Big Bang.

The strongest point of the book is that it leaves in the details that first

year mechanics lectures left out for some reason. For example, I never realised that Tycho Brahe had a pet elk. Also, from the rather solemn pictures of Tycho himself, no-one would expect the astronomer to be such a party animal (the pet elk in question died after falling down the stairs due to excessive alcohol consumption, apparently).

This book does well to place the science in context – although Pius XII, Igor Stravinsky and viagra contributed very little to the HSK model, the book reminds us that science doesn't take place in a vacuum.

The style Singh uses is, understandably, geared towards non-scientists, and so I believe that anybody would be able to enjoy this book. The range of physics he covers is very broad, including classical mechanics, relativity, atomic and nuclear physics, electromagnetism as well as the obvious astrophysics and cosmology. These are all explained very effectively, although some physicists will find a few of the explanations slightly tedious. There are some more complicated points in the epilogue to keep everyone on their toes, though.

The major criticism I have of *Big Bang* is that its greatest strength also shows its flaws. Despite the



Big Bang author Simon Singh at Imperial College

effective telling the story of the HSK, it does skip over a few characters – the roles of Lorentz, Poincare and Schott, for example, are missed out completely. The phrase "Chadwick discovered the neutron", along with a picture claiming to show the exterior of the laboratory where he did it, will doubtless have a few people up in arms. Also, the sense of humour is slightly bad at times. I am one of the worst offenders as far as appalling physics jokes are concerned, but still, Singh takes

it to the limit. Describing Franz Zwicky as the leader of "The Tired-Light Brigade," and the recession of galaxies in terms of the Milky Way's "Cosmic body odour"... there is only so much that I can stand! But then again, this is a matter of personal taste.

Of course, there is a strong connection to the college. Singh used to be president of the Royal College of Science Union, as well as editor of the physics student magazine, *Schrödinger's Cat*. Those of you

with sharp eyes may recognise a few names Singh mentions incidentally, in particular Huxley and (a more recent example) Rowan-Robinson.

So, overall, *Big Bang* is an interesting read, but don't expect too much deep physics from it. It is, after all, a popular science book, and it does what it sets out to do well. Oh, and what does HSK stand for? According to Calvin and Hobbes, it's the 'Horrendous Space Kabloolie'.

Nicolas Osman

Film

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Film listings: see
What's On, page 16

We love Huckabees

Originality and weirdness prevail in David O Russell's quirky, existential comedy on life's profound questions

I Heart Huckabees

Director: David O Russell
Starring: Naomi Watts, Jason Schwartzman, Jude Law, Mark Wahlberg, Dustin Hoffman
Length: 107 minutes
Certificate: 15
★★★★★

I Heart Huckabees is one bizarre film. I was confused. I was happy. I was bored. I was excited. I don't even know where I stand with this film. I could give it one star. I could give it five stars.

It has to be five stars though. Yes, it's quirky, but it's original and wonderfully refreshing. It's a philosophical film and a simple philosophy at that: "hope versus despair, and light versus dark".

I Heart Huckabees has an outstanding cast, who seemed to click together through the eccentricity of their characters. It is a deep and meaningful comedy that has made philosophy funny and entertaining.

The philosophical aspect concerns the idea of existentialism, a thinking of uniqueness and isolation of the individual experience in a hostile or indifferent universe; it regards human existence as unexplainable. These are the kind of ideas that keep you up all night, wondering what it all means.

The story follows the not particularly successful environmentalist Albert Markovski (Jason Schwartzman). Through a series of coincidences, he is brought to

a happy husband and wife duo – a detective team who help others to solve their existential issues. Vivian (Lily Tomlin) and Bernard (Dustin Hoffman) portray these slightly abnormal characters excellently. Their idea is to stalk Albert ridiculously subtly to find clues to what makes him tick, their philosophy being that life is like a blanket of fibres of interconnecting existence where everything is related.

Albert's job is to protect a plot of land that the Huckabees department store cooperation is planning to build on. He's doing a poor job and corporate charmer Brad Strand (Jude Law) steps in to do something about it. There is a love/hate relationship between Albert

"These are the kind of ideas that keep you up all night, wondering what it all means"

and Brad, which is fun to watch on the screen. Albert is also introduced to Tommy Corn (Mark Wahlberg), another client of the existential agency, and they connect immediately. Wahlberg makes an excellent side kick, a 9/11 fire-fighter with an anti-petroleum obsession. He makes you laugh in every scene – without him, this film wouldn't have been half as funny.

Albert and Tommy fall into the hands of Catherine, a French auburn



The all-star cast is put to good use in one of the year's most unique movies

sex goddess (I couldn't really see that myself), who was an ex-pupil of Bernard and Vivian gone wrong. She has formed the opposite theory to Bernard's: "Life is meaningless and valueless, a world of random chaos where values are arbitrary". Perhaps her theory will work?

I Heart Huckabees is an unpredictable ride. It is not a film for the conventional person. All the characters are the extreme of a certain stereotype. Brad is the 'always happy at work but not on

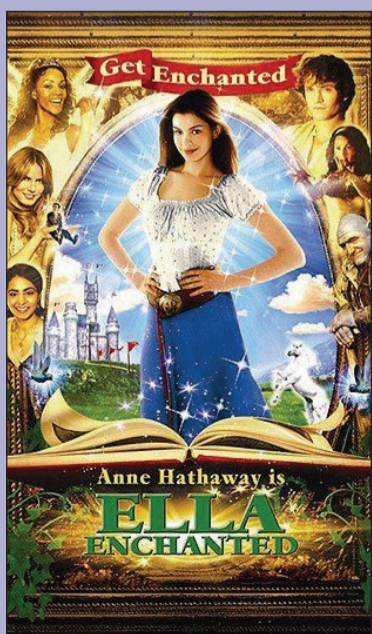
the inside' corporate. His girlfriend Dawn Campbell (Naomi Watts), the pretty spokesmodel of Huckabees, is the 'all looks and no brains' kind of girl. Plus there's the eccentric environmentalist, Albert, who likes to write poems. This is a film to make you really think – it is not a good movie for those seeking mindless entertainment. There are hidden meanings that will bewilder and will go over the head of some viewers.

I was baffled to begin with, as the

story is surreal, and has a strange plot. Some, like those who walked out of the film when I watched it, may find it hard to keep up with. However, there are some extraordinary ideas and some extraordinary characters, which are all played so well, that just make me love this film in the most absurd way. It's also one for the girls with the likes of Jude Law and Mark Wahlberg. You may as well stay and watch, even if it's just for them.

Melissa Parkinson

100% free screening



Forced by a spell of pure obedience to do anything she's commanded, teenage Ella (Anna Hathaway) sets off to break the charm, crossing paths with handsome young Prince Char (Hugh Dancy) and his nefarious uncle (Cary Elwes) on her adventure. This is a comedy chick flick rooted in fairy tales and is a sort-of live action version of *Shrek*. The screening is on Sunday 12 December at 10am for 10.30am.

To get your tickets, simply email film.felix@ic.ac.uk.

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OUT NEXT WEEK

Out on Friday 10 December at Vue Fulham Broadway:

Blade: The Trinity
Phantom of the Opera
The Polar Express

Visit www.myvue.com/student for details and more competitions (as well as free popcorn!)

Also, as part of the build-up for these spectacular releases, Vue Fulham Broadway are giving you the opportunity to win merchandise from these three movies. Just answer this question:

Who plays Blade?
a) Denzel Washington
b) Wesley Snipes
c) Morgan Freeman

Email your answers and which merchandise you would like to win to film.felix@ic.ac.uk. Usual *Felix* competition rules apply.

Alan Ng
Film Editor

Bridget Jones giveaway



Courtesy of the wonderfully generous management at Vue Fulham Broadway, there are ten *Bridget Jones: The Edge of Reason* posters to be won.

Simply answer the easy question: Who plays Bridget? Email your answers to film.felix@ic.ac.uk. Usual *Felix* competition rules apply.

Brrrrrilliant

The Polar Express is making its way to the UK for a journey beyond your imagination, to make you believe this holiday season

The Polar Express

Director: Robert Zemeckis
Starring: Tom Hanks,
Eddie Deezen, Nona Gayne
Length: 100 minutes
Certificate: U
★★★★☆
Released: 10 December

To be honest, I really didn't know what to expect from this film. Obviously, it was about Christmas, which to me implied it was a children's film, not something that I would generally go to watch or look forward to. However, I kept an open mind as I took my seat in the cinema and waited for *The Polar Express* to

begin. I was pleasantly surprised.

The film is set on Christmas Eve. It's the night before Christmas and a young boy is at that age where he is beginning to doubt whether Santa Claus really exists. A loud racket wakes him from his sleep as his bedroom begins to shake. Lights shine through his window as he realises something big is moving outside. Charging out the door into the cold and into the snow he comes face to face with an old steam train, *The Polar Express*. Accepting the invitation by the conductor, he climbs aboard as they set off for the North Pole, and for Santa. He finds he is not the only one aboard as he sets eyes on other children of similar

ages, all potentially facing their last year of believing. However, the ride is not a smooth journey and it'll take more than luck to get them out of trouble. It'll take some magic!

Tom Hanks sees to the voice of the conductor as well as many other characters in the film. For a brief moment I thought it might be better to include a few other big names, but really the parts are too small. Returning to my senses I decided it was a good idea to let Hanks ride solo. Unsurprisingly for an actor of his talent, he does a great job.

"It really put me in the mood to share the holiday spirit"

The Polar Express is pleasing to the eye from start to finish as the computer animation is spectacular. Both the characters and their surroundings look as real as I've ever seen in a CGI movie. At times you forget that it isn't real... until you see elves running around, of course.

Whilst its visual appeal is at an extraordinary level, it was the amount of action in the film that surprised me the most. Obviously it can't compete with the latest sci-fi or thriller but in defence of *The Polar Express*, it wasn't meant to be any



That must be an awfully tall mountain

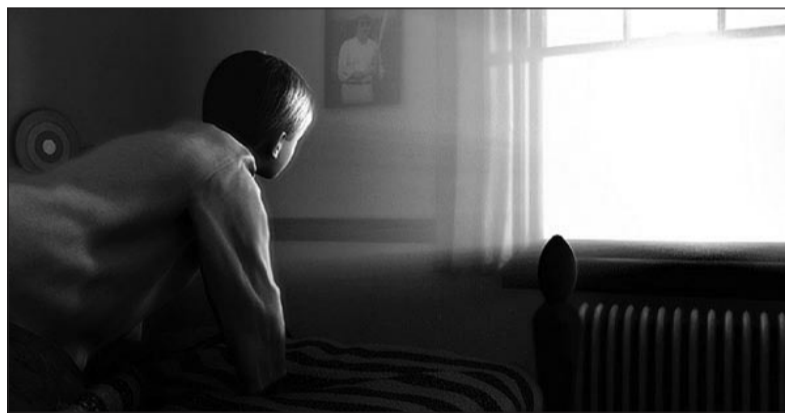
of these things. It's a Christmas film, the most action-packed Christmas film I have ever seen. It includes everything from the driver losing control of the train to the train itself being derailed and skidding across an enormous glacier. Towards the end of the movie, the excitement dies down quite drastically, but the rest of the film more than makes up for it.

One thing that I didn't find so amazing was the songs. Admittedly they were probably good in their own right but they just didn't appeal to me and I was grateful that the characters kept their bursting into song to a minimum.

I never really considered myself to be a great fan of Christmas films, however *The Polar Express* is worth watching especially since we are creeping ever closer to the festive season, and has certainly changed my views. I found it really put me in mood to share the holiday spirit.

Although the film has a few little kinks in its overall appeal, there is nothing that should spoil it for anyone. People of all ages will enjoy this film if they go bearing in mind what it is they are about to watch. It's about the spirit of Christmas, so be open minded, sit back, relax and enjoy.

Stephen Smith



Dawn just comes too early

Should have been Forgotten and left in America

The Forgotten

Director: Joseph Ruben
Starring: Julianne Moore, Gary Sinise,
Anthony Edwards, Linus Roache
Length: 91 minutes
Certificate: 12A
★★★★☆

I'm a great lover of movies. It's rare that something comes along and taints my opinion of Hollywood. This is one of those unthinkable moments. *The Forgotten* is truly one of the worst movies I've seen in a long time. Before you read any further, this review contains plot spoilers, otherwise there is no way to review this movie. But that shouldn't matter – you shouldn't see this.

Telly Paretta (Julianne Moore) lost her son, along with eight other children, fourteen months ago in a plane crash. She can't stop grieving. Her psychiatrist (Gary Sinise) wonders if she is enhancing her memories of Sam. She tries to limit her daily visits to photo albums and home videos. Then, one horrifying day, she finds that all her photos and videos of Sam have vanished and been erased. She blames her husband Jim (Anthony Edwards), but then she gets the bad news: she never had a son. She had a miscarriage. All of her memories of Sam have been fabricated in some kind of post-traumatic-syndrome scenario. The shrink and her husband agree: no Sam. In desperation, she turns to a neighbor Ash Correll (Dominic West), whose daughter also died in the same crash. He tells her he never

had a daughter. Rather miraculously though, he remembers, though everyone else still has no clue.

The movie then descends, quite frankly, into absurdity and repetitiveness. Its one chase after another, where they just seem to get away every time, even though the pursuers are government agents. There are also the repeated reruns of Telly's memories of Sam, and his annoying smile and wink. Even the most ardent of movie-goers grows weary and tired.

The movie is disjointed, with people seemingly jumping from one conclusion to another. There's little or no elaboration upon how they make some of the absurd conclusions that they inevitably do in order to drive a preposterous plot. "The goddamn

"Why on earth did Revolution Studios bother to make this?"

truth won't fit in your brain," yells a desperate agent. Sadly, the "goddamn truth" and plot would fit on the back of a postage stamp. The dialogue is lazy; the script is bland and unintelligent, though adequately delivered.

There are continuity errors aplenty: running pedestrians over without so much as denting your car perhaps? The acting is laughable at times, in particular West's performance in an interrogation scene. The majority of the last hour is laughable.

So why should you go see this



One nice happy, amnesiac, vanishing family

movie? Like *Gigli* (Ben Affleck and Jennifer Lopez), the temptation to go see a shockingly bad movie can be quite hard to resist, and it can turn out to be quite a good laugh! Be warned, however: make sure everyone knows what they're getting into, otherwise you'll just feel guilty (like I did) for wasting two hours of your friends' lives. Other high points of *The Forgotten* include the trailers, the popcorn and a few shocks and scares – including a scene where a cop gets pulled off the case, so to

say; even though highly predictable it still makes little girls scream.

In all fairness though, Julianne Moore does give a good performance, and is convincing. And it has been a while since I saw a movie about the paranormal. But ultimately, I was left wondering why a creditable actress like Julianne Moore agreed to be cast in a terrible movie like this. Perhaps the money, or even stranger still maybe she's a believer. Who knows? But more incredibly, why on earth did Revolution Studios

bother to make this, and why did Columbia choose to distribute it? Do they really think that there is money to be made with such bad material? That said, Columbia did manage to create an enticing trailer that convinced some poor souls to pay to watch it.

Seriously though, if you have free time this week, go see *I Heart Huckabees* or *The Polar Express*. I wish I had.

Alan Ng
Film Editor

Coffee Break

coffee.felix@ic.ac.uk

Coffee Break, like syphilis, never really goes away. This is the last edition before our Christmas special, so send your lovely entries in now to **coffee.felix@ic.ac.uk**

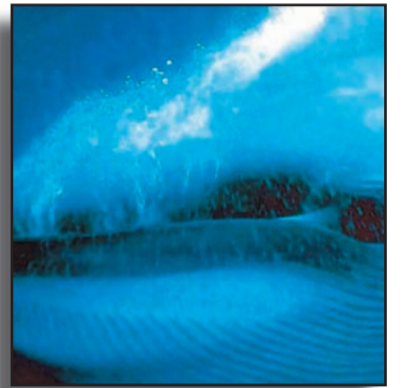
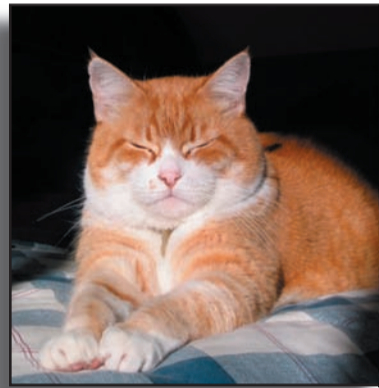
Man vs beast

As Imperial Students, we like to think that we're just that little bit better than our fellow man (UCL), and that we're the kings of the (academic) jungle.

But what about the real jungle, could we survive then? In the big wide world, it's survival of the fittest, and everything comes down to one thing – who has the bigger knob.

Suddenly you're not feeling too cocky eh? It's clear that not even the most smug and self-important medic, with a God-complex the size of Essex, seriously thinks that they have a schlong as long as a whale's. So to even things up, or down, we've put them in proportion to each other. Just tell us **which animals have the biggest wang?**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
8. Man
- 9.



Just in case you can't tell: Elephant, Horse, Cat, Blue Whale, Monkey, Dog, Pig and Hippo

Hollywood's finest

Aww look at the ickle-wickle babies below – they're so cute aren't they? Who would think they'd grow up to become Evil Hollywood Scum? Just tell us who they are. So it's not too hard, I've added a few clues to help. There is two points for each correct answer here, so good luck.



1 This little cutie is married to our baby number two, and has been in our favourite sitcom of the past few years.



2 He's all the girls' favourite. He was last seen in a leather skirt wandering around the desert in this spring's blockbuster.



3 She's a Welsh diva, but not in this picture. She's got an old man for a hubby and a baby or two.



4 He's just gorgeous in this picture, but I can't say that any more. He raps about drugs and porn.



5 She's blonde, she's been a cheerleader and more recently Spiderman's lover.



6 She's a vampire slayer, that's an obvious clue, but she hasn't changed anyway.



7 Aliens have tried to kill her, but she's a tough cookie and survived to tell her tale.



8 She was famous by this age already. She's not that innocent any more.

FUCWIT Answers: Issue 1306

Just the two quizzes from us a fortnight ago, so not many answers for us to give.

Foot in mouth

Everyone who entered was pretty good at this, you obviously all spend way too much time in hairdressers reading *Heat*. Answers then:

They lie about me: Michael Douglas

They're unfair to me: Christian Slater

They're mean to me: Diana Ross

It's not easy to be as great as I am: Bruce Willis

My love life stinks: Woody Allen

It's not easy being a woman: Dolly Parton

I've a hard job: Michelle Pfeiffer

Ugly XI

A bit of controversy here regarding mingers who should have made the first team. There was no way Jim Leighton, Paul Scholes or Bobby Charlton deserved to make the first XI, despite the opinion of some readers.

1. German Burgos
2. Socrates
3. Mark Wright
4. Carlton Palmer
5. Barry Venison
6. Alexei Lalas
7. Emmanuel Petit
8. Jens Jeremies
9. Peter Beardsley
10. Matt le Tissier
11. Ronaldinho
- M. Ian Dowie

COFFEE BREAK

coffee.felix@ic.ac.uk

The Coffee Break Interview: David Brent

Welcome to the first (of one, probably) of our Coffee Break celebrity interviews. This week we don't quite have the pleasure of bringing to you the man whose philosophy rivals that of Descartes, whose musical skills rival Texas and whose dancing outshines MC Hammer... Mr David Brent.

I know what you're probably thinking, "He's not very high profile" or "I thought he plummeted into oblivion at the end of that crap documentary on BBC". And you'd be right.

In fact, these column inches are an attempt to relaunch his chance at fame and fortune in the music industry. After that single, we had a few questions to ask...

[Just fill in the gaps yourself and email your witty answers to the usual address. Once again, points if you make us laugh, and even bonus points if your responses resemble a Brent-ism]

So, what have you been doing since your embarrassing exit from Wernham Hogg?

Let me just stop you there, I've had this conversation before and I've explained that the BBC edited the footage and they had to portray me as a 1 and 2, whereas in reality I am in fact highly 3 and extremely 4.

Well, we were only referring to your departure from our screens when you were 'made redundant', but if you want to talk about that then go ahead.

Made redundant? We had a differ-

ence of opinion. Neil wanted to make some changes and he couldn't handle a mutiny, so he just took the 5 way out, making me the 6. Really it was the opportunity I always needed to 7. Anything else?

So what have you been doing with your time? Any more guest appearances?

No I've given that up now - that's the Brent of the past. That Brent was a 8 who was obsessed with 9. I'm like that Christmas book - there's the ghost of Brent past, the ghost of Brent present and the ghost of David Brent to come. Except I'm not a ghost. And I don't appear to old men at night. Right now I'm crossing over [makes crossing motion with arms] from the present to the future. I'm... preparing. There's a lot in the pipeline.

Like what?

Without wanting to give too much away, there's a 10 job which I've been asked to work on for 11, plus I've got some of my own 12 that I've been throwing together, so to speak.

Does any of this involve furthering your music or dancing career?

Well I have been approached by a number of 13 regarding my, quote, "impressive dancing abilities" and whether I was interested in taking it further. Obviously I was more than flattered, but I had to look at it from the point of Michael Flatley, I had to be 'The



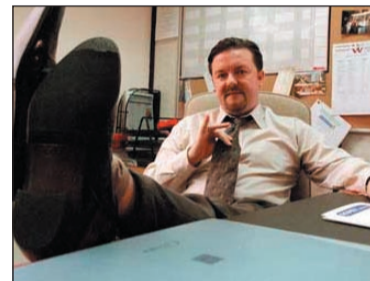
Brent is a self-taught exponent of interpretive dance

Lord of the Dance'. I realised that it wasn't always 14 and that like Michael I would probably peak early; I wouldn't be able to deal with 15. With the musical side of things I don't think people are ready for the Brentmeister General just yet, I'm too 16 for them. I've had to put the music industry on the back burner.

Any last words?

I don't say last words. First words are better. Except in an argument obviously. But if I had to then I'd probably say, in the words of a great

comedian: "Dying is easy. Comedy is difficult". Yeah. Not that I'm dying of course.



The self-proclaimed 'chilled out entertainer'

FUCWITS

Things are looking a bit more competitive this week as we were forced to ban the Management Slackers from the football / quotes quiz, due to their eerily close ties to the Felix office. This has given the rest of you an ideal chance to catch up and to even things out a bit.

Well done to the winners of a couple of weeks ago, The Illegitimate Bionic Progeny of Jeremy Beadle. And comiserations go out to Team Willy J, representing my old hall, and doing a really shitty job of it too, managing an embarrassing score of 8. Even a geologist could do better.

This week:
Man vs Beast: Two points if you get the animal in the right place. Just one if you're pretty close.

Hollywood's Finest: Two points for each bairn identified.

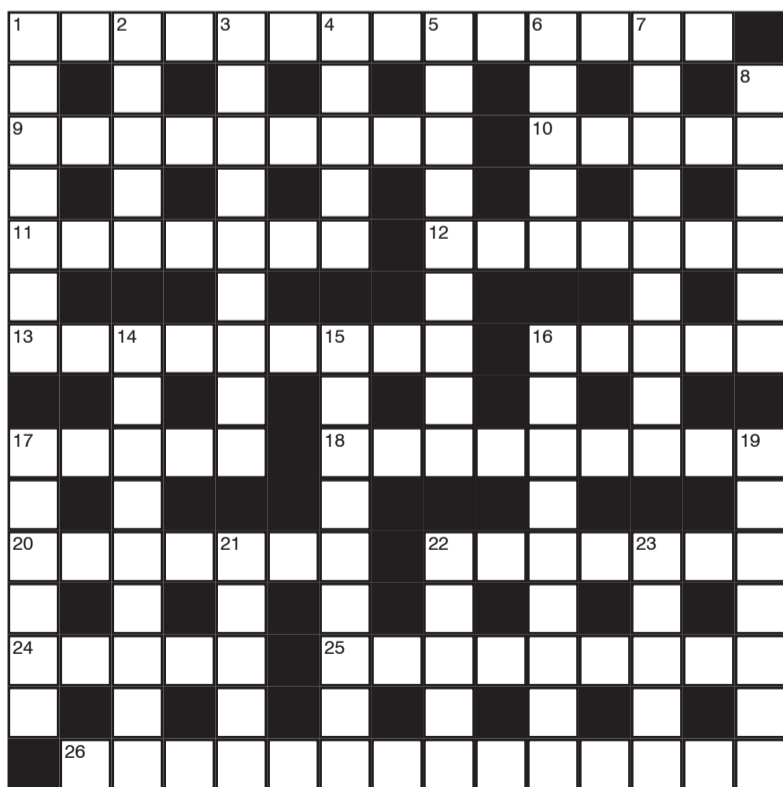
FUCWIT LEAGUE 2004-5

Management Slackers	96 points
Smith & Wesson	81 points
Team Bulwer	42 points
The Illegitimate Bionic Progeny of Jermemy Beadle	38 points
The B Team	22 points
See you next time	16 points
Natasha Kundi	10 points
Team Willy J	8 points

Send in your entries to coffee.felix@ic.ac.uk

Felix Crossword 1308

by Snufkin



Across

- Leader Thatcher is crooked, sheltering current queen of crime (6,8)
- What the unpaid do to get their own back (9)
- Embarrass Austria's leader at party (5)
- Last offer (4,3)
- Destroyed Mailer's rejection of idealism (7)
- Italian grandee lost magic info (9)
- Imports agency (5)
- Polish film star (5)
- Common as muck? (4,5)
- Best diplomat beheaded and mangled (7)
- Even number needed for squash (7)
- Send a message from Porte Maillot (5)
- Six people in the world, perhaps, rashly hit on by Gates (9)
- He conceived Maigret genre - semi-goons delirious! (7,7)

Down

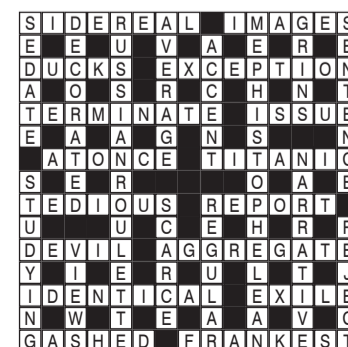
- Lincoln's patriarch (7)
- Shock a saint, so to speak (5)
- Someone analysing water under the bridge? (9)
- Trunk, or just part of it (5)
- Pool for Tarantino's dogs? (9)
- Zulu leader is unshakable at heart (5)
- Lifeless but fashionable Japanese film about a tree, primarily (9)
- More for doubtful apostle (6)
- Reading of Dogg's Hamlet? (5,4)
- I'd been ill, unfortunately, but never blacked out (9)
- Mash and mince prepared with such a contrivance? (9)
- Author who adds fuel to the fire? (6)
- Nick talking about Mason & Dixon author (7)
- Grinder producing standard solution for chemists (5)
- People initially find Ohm's law kids' stuff (5)
- Saw nine musicians getting up (5)

Three of the most celebrated crosswordsetters of all time - Torquemada, Ximenes, and Azed (Deza) - took their pseudonyms from fearsome leaders of the Spanish Inquisition. I, on the other hand, am Snufkin, a resident of Moominvalley and a player of the mouth-organ. The puzzle before your eyes is supposed to bring you pleasure, not pain. So if you do feel tortured, you must email me to say so.

We've now covered most of the tricks you can expect to come across. You should also watch out for clues relying on homophones (words that sound alike), as indicated by, eg, 'we hear'. There are a few of these amongst the down clues this week. Good luck!

Snufkin

Issue 1307 solution



Last week's winner is Karen Osmond, Computing IV. Well done! Send your answers to coffee.felix@ic.ac.uk or bring this page down to the Felix office in the West Wing of Beit Quad. Each week, we'll choose a winner and print their name, thus providing them with almost unlimited kudos and self-satisfaction. Everyone who provides us with a correct solution will get an entry into our prize draw at the end of the year

SPORT

Hockey ladies eat goal pie again

HOCKEY

Imperial Women's 1st 6
Reading Women's 1st 1

By Hannah Marshall

This week, Imperial ladies hockey fans will be delighted to hear that the team celebrated a long awaited first emphatic victory of the season, as for 70 minutes of freezing Harlington hockey,

the team let Reading feel the wrath of their new found goal pie attitude!

Obviously this week we had neglected our Wednesday morning reading of journals, which has previously been instrumental in leaving us sleepy for the first 20 minutes. In fact, this week, it was Reading who were vulnerable from the start, as Imperial went one-nil up within the first 20 minutes with a pace-

setting shot from Yoda, which became her first goal in three years.

A hardworking Imperial side then continued to press, hitting Reading at pace and leaving them 3-0 down at half time with more goals from Embryo and a cracking short corner from Flush. A quick but effective team talk – goal pie – and the onslaught continued...

The goal posts certainly

weren't eluding us this week, as some neat passing play in midfield and defence paid dividends for the Imperial attack. Our right midfielder, Tandem, had a particularly solid match, earning her the 'player of the match' accolade.

Again, dominating the play for the second half, Imperial saw more and more of their chances converted. Embryo used her youthful pace to glide

past nearly every Reading player in one go, taking the ball from defence to attack in a sweet run, which was slotted away with exquisite style. An indignant Reading managed a scrappy consolation goal on the break, as our defence were thinking about which of them was going to score next instead of paying attention to Reading's threat.

Imperial bounced straight back and almost immedi-

ately made it 5-1 and then 6-1 with classy scores from Anticlimax and this season's top scorer so far, our very own DJ (F)lush.

So the warm-up certainly is over. An elated Imperial team left the pitch contemplating future victories, while dejected Reading skulked home. A fantastic team performance, with a touch of class from every player throughout. Bring on St Mary's next week!

Mystery penalty costs Thirds points

FOOTBALL

Buckinghamshire
Chilterns Men's 3rd 1
Imperial Men's 3rd 1

Having lost narrowly to a fluky long range hoof against Bucks in the home BUSA fixture, the mighty Thirds travelled to sunny Buckinghamshire for the return match.

With only a few changes after the Holloway game, bringing in country yokel Tim in at left back and Jan returning on the right, the Thirds left in plenty of time to get to High Wycombe in the big blue fun bus, narrowly avoiding ploughing into the

back of a car on the motorway because "Shatters' foot got stuck under the brake".

We arrived in the armpit of Britain to find that the pitch was as lumpy as a sack of potatoes and the referee seemed to have forgotten his pacemaker. Still, we kicked off believing we could get a decent result, with a lot of the play in the centre of the pitch.

Attempts on goal seemed to be few and far between for the Thirds, restricted to long range efforts from Tim and John Slavin. At the other end, the back four were proving resilient in denying the country bumpkins any decent

chances from the numerous corners they won. After some concerted pressure in midfield, however, the Thirds managed to carve a chance for John Scott following a through ball by Slavin. Scott finished with his usual skeffy aplomb and pea-rolled the ball into the corner of the net past the 'keeper. Get in!

Bucks came back at us pretty hard, with some strong challenges flying in from all directions. Leon was "kindly helped up" after one challenge by a Bucks player who thought that dragging him along the ground for a couple of metres by his shirt was doing him a favour. Eventually

the pressure started to tell, and a mix-up between James Haugh and Caruso resulted in one of their strikers hooking the ball goalbound. Only a last second clearance off the line by Tim stopped Bucks getting their equaliser.

Unfortunately for us, they succeeded a few minutes later. Another corner, this time cleared perfectly by the defence, resulted in the referee having a moment of madness and blowing a whistle for a foul on a striker. When asked who committed the offence, he pointed off in an indiscriminate direction at nobody in particular, no doubt absent-mindedly dreaming of

the days when he was young and would play football in the park with the other boys, jumpers for goalposts and oranges at half time. Their striker buried the spot-kick to make it one-all. It stayed the same way until the half time whistle.

After half time, Bucks again came out strong. Having a combined IQ that could have passed as a Tiger Woods golf score, they thought that good football meant hoofing it to their striker and then kicking whoever got in their way. Plenty of rash tackles resulted in some fiery banter all around, with their central midfielder, now confirmed to

be the Missing Link in human evolution, particularly vicious. Still, resolute defending, good luck and the commitment never to give up meant that we kept out any chances they had.

Unfortunately we were unable to create any clear cut chances and steal a victory at the end, in no large part due to their linesman's insistence on flagging anything that might look like a potential chance offside. After the game, it was off to the Tesco café for a quick slap up meal and then back on the funbus for a suicidal drive back into London and some free pints at the Union.

Whinging Luton get beating they deserve

FOOTBALL

Imperial Men's 3rd 3
Luton Men's 4th 1

By Ian Robinson

Team Big Kick were in buoyant mood at Harlington ahead of their BUSA clash with Luton Fourths, boosted by the return of their favourite idiot to form the dolphin-like ring of steel at the back.

With the loss of Has in centre midfield and the fact that Luton had lost every single game this season, captain Shatters felt it was time to shuffle the pack and bring in Clement for his first taste of third team sexy football.

The game began with Imperial on the back foot after a series of attacks from Luton. After a while, Imperial began to press forward with some real purpose, providing Perry with a couple of half chances which Luton were lucky to keep out. Despite constant moaning at the ref from a few Luton players, the inevitable soon occurred when Imperial took the lead. This came via a penalty from the trusty boot of Hideki after a foul on new boy Clement in the box.

The tight Imperial defence held out until half time to receive a few words of encouragement from Shatters. The second half began much like the first had finished, with Luton trying their best to hold out against the attacking might of Imperial Thirds. After Hideki had put their right back on his arse for about the 33rd time with some mazy dribbling, he responded by hacking down the tricky winger on the edge of the box. Hideki stepped up himself to float in a sublime ball to the six yard line where it was met by the salmon-like dolphin head of centre back Caruso, who had stolen in at the back post to nod home his second goal of the season.

By now, Imperial were having such dominance of the game that Adam felt it was only right to give Luton a chance to get back into it. Receiving the ball in the centre of the park, he turned to play their midfielder in and leave the dolphins at the back in a three on two situation. Some unusually poor tackling then led to two men charging on Shatters, and unfortunately he hacked down the one without the ball leaving their striker to slot the ball

past Imperial 'keeper James. This brought Luton back into the game with the score at 2-1.

Unfortunately for Luton, however, they still hadn't figured out how to make tackles at the back and proceeded to give away another free-kick away in a dangerous area. This led to Caruso charging into the penalty area and yet again turning into a pink salmon. Despite cries from the Luton captain of "We know where this is going", they clearly didn't because yet again the salmon rose at the back post to glance home another fine free kick from the boot of Hideki. The mighty Imperial had regained their two-goal lead, but all the scorer had to show for it this time was a big kiss from captain Shatters.

As Luton's frustration grew the game descended into a dirty affair with Anthony very lucky to stay on the pitch for a two-footed lunge. The game was all but over when sub John Slavin had a goal disputably ruled out for offside.

All round, it had been a fine performance from the mighty Thirds as they kept the pressure on at the top of their BUSA group.

Results

WEDNESDAY 24 NOVEMBER

BADMINTON

Reading Women's 1st 4
Imperial Women's 1st 4

BASKETBALL

London Met Men's 2nd 72
Imperial Men's 1st 53

Imperial Women's 1st 20
London Met Women's 1st 54

FOOTBALL

Canterbury Christ Church Men's 1st 1
Imperial Men's 1st 0

Buckinghamshire Chilterns Men's 2nd 0
Imperial Men's 2nd 2

Imperial Men's 3rd 3
Luton Men's 4th 1

UCL Men's 5th 2
Imperial Men's 4th 1

St Bart's & Royal London Men's 2nd 1
Imperial Men's 5th 2

Imperial Men's 6th 2
King's Men's 5th 0

School of Pharmacy Men's 1st 1
Imperial Men's 7th 0

HOCKEY

Imperial Men's 1st 7
GKT Men's 1st 3

Imperial Men's 2nd 0
Imperial Men's 3rd 2

Imperial Men's 4th 0
LSE Men's 2nd 10

St Mary's Women's 1st 4
Imperial Women's 1st 0

LACROSSE

Imperial Women's 1st 13
Brighton Women's 1st 7

NETBALL

Imperial Women's 2nd 39
St George's Women's 3rd 17

RUGBY

Imperial Men's 1st 21
GKT Men's 1st 12

Imperial Men's 2nd 0
St Mary's Men's 2nd 52

St Bart's & Royal London Men's 2nd 3
Imperial Men's 3rd 77

SQUASH

Imperial Men's 2nd 2
Reading Men's 2nd 1

Imperial Men's 3rd 0
Queen Mary Men's 1st 3

TENNIS

Kent Men's 1st 2
Imperial Men's 1st 8

SATURDAY 27 NOVEMBER

FOOTBALL

King's Men's 1st 1
Imperial Men's 1st 0

Imperial Men's 2nd 0
Royal Free Men's 1st 1

Imperial Men's 3rd 0
UCL Men's 2nd 1

Royal Vet College Men's 1st 1
Imperial Men's 4th 0

Imperial Men's 6th 0
UCL Men's 6th 4

SUNDAY 28 NOVEMBER

FOOTBALL

Imperial Women's 1st 1
LSE Women's 1st 6

LACROSSE

King's Mixed 1st 15
Imperial Mixed 1st 4

SPORT

Swimming the short course at Sheffield

SWIMMING

BUSA Short Course Championships, Sheffield

By Sakura Hingley

This year, for the first time in the Swimming Club's history, Imperial College was represented at the BUSA Short Course Swimming Championships.

The team consisted of nine swimmers with a variety of swimming experience. Some were regular competitors, while others had never competed in a large venue such as Ponds Forge in Sheffield, where the competition was taking place.

The first session began at 6pm on the Friday afternoon, with the 800m freestyle, swum by Sophie Mitchinson, and the 200m freestyle relay

events. Considering that we missed the warm-up due to the appalling traffic, all events were swum superbly, especially by the boys' team who showed their sprinting strength.

Sessions two and three on the Saturday also demonstrated the strength that the Imperial swimmers have been building up to over the last couple of months in preparation for the competition: Sarah, Sakura and Jon all powered through the 200m with respectable times, while there were brilliant sprints swum by Alison and Hugh in the 50m breaststroke and Jonathan in the 50m backstroke.

The afternoon also showed promising swims from other team members. Dan was placed in a fast heat and showed his backstroke power whilst Gianluca, although a



Swimmers (left to right): Sarah Skennerton, Sakura Hingley, Jonathan Page, Daniel Houcke, Gianluca Guiccardi, Rodrigo Marino-Gonzalez, Hugh Ip, Alison Coyle

bit wobbly at the start, shot through the 50m freestyle.

The proudest moment for the team came when Sophie Mitchinson qualified for the 200m backstroke final, which was swum that evening. All the team were present on

poolside as she walked to her block and her name was announced: "Representing Imperial College, Sophie Mitchinson". Pride and joy filled us all. Sophie did the Imperial name proud by swimming a wonderful time

of 2:31.10 and is now ranked tenth fastest BUSA 200m backstroke swimmer 2004.

For the last day of competition, Sunday, everyone clambered back to the pool side in dribs and drabs, tired from the day(s) before. The heats were swum in the morning, including Gianluca swimming the 100m freestyle; Rodrigo and Hugh both slightly disappointed by their 100m breaststroke swims; Daniel swimming a good 200m IM; Sarah and Alison proving their strength in the 50m butterfly; and Jon very pleased with a new personal best for his 100m backstroke.

Due to her time entered for the 400m freestyle, Sophie was entered into the fastest heat, which meant that she once again managed to get into a final (as the fastest heat was to be swum in the finals in the afternoon).

Despite being disappointed by her own time, she touched the wall in eighth place, again raising the level of success higher for the Imperial team.

After a strenuous but exciting and successful three days for the nine Imperial swimmers, it was back to the minibus for another long drive back to London. Everyone had had a brilliant weekend and was ready to get back into the water for more vigorous training to prepare for the next trip to Ponds Forge - the BUSA Long Course Championships in February.

If you would like more information on when and where we train, or any other information about the Swimming Club, please have a look at our website, www.union.ic.ac.uk/acc/swimming. Alternatively, you can contact the swimming president at sakura.hingley@ic.ac.uk.

Sevenths success

FOOTBALL

**Imperial Men's 7th 4
Queen Mary Men's 5th 2**

By Sam Styles

Imperial Sevenths started with their revolutionary new 5-4-1 formation which has halted a run of six defeats in a row and led to wins in the last two fixtures.

Clearly the better of the two teams in the opening stages, Imperial dominated the first 20 minutes. As the pressure mounted, a goal seemed inevitable. It came at the wrong end, however, as in the 20th minute QM broke quickly with a long ball through to their number 10. With the Imperial defence's usually highly effective tactic of appealing loudly for offside when a striker is through on goal impressing neither referee nor linesman, Ario was left helpless at the back as the striker made it

1-0 to QM.

The game settled into a more even pattern after the goal as QM grew in confidence, and it looked as though Imperial would find themselves 1-0 down at half-time. But two quick Imperial goals before the break ensured this would not be the case and gave the Sevenths a deserved half-time lead. Firstly Thom fed Jack who, one on one with the keeper, unselfishly squared the ball to the supporting Ryan who stroked the ball into the unguarded goal. Five minutes later Stefan made a surging run from centre half. Intercepting on the halfway line, he beat three men on a charge up the left touchline before smashing the ball past the 'keeper.

The second half was a much scrappier affair, with the QM team pushing forward without ever really threatening the Imperial goal. The QM defence was sitting very high

up the pitch, and this was exploited in the 55th minute when Geordie found Leo on the right wing. Leo beat his man before dribbling into the box and shooting low into the far corner, 3-1 Imperial. More pressure followed as Geordie hit the corner of post and bar with a sweet curler from 30 yards and Tuan shot straight at the keeper when clean through.

Twice this season Imperial have thrown 3-1 leads away to lose 4-3, and it looked as if we could be punished for our poor finishing yet again as QM pulled a goal back. However, any fears of the Sevenths throwing yet another lead away were extinguished almost immediately by the QM 'keeper, who, having seemingly completed a comfortable save, somehow contrived to throw Geordie's 25-yard left-footed drive through his legs and into the net.

Another win for Firsts

NETBALL

Sponsored by



High performance. Delivered.

**Imperial Women's 1st 40
Westminster Women's 1st 33**

By Candy Fisher

After a disappointing result last week, we renewed our sprits for our second home BUSA match of the season, this time against Westminster.

With a fantastic performance from the entire team, we led throughout the match, eventually winning by 40 points to 33. The team is finally beginning to work together even with the squad only technically consisting of six players at the moment due to injuries!

The first quarter saw us get off to a flying start, quickly taking a four goal lead. With our central play much improved, our captain Alberta worked the ball up the court effortlessly with the help of Stux at wing attack, a change from her normal position. They fed the ball into the shooters who were both on fire - hardly a single shot was off target!

The second and third quarters were fairly evenly matched, and while we couldn't pull away, we didn't let them eat into our lead either. Defence was tight from the whole team, and we stayed positive despite the match feeling like it was at stalemate.

The last quarter saw the usual scrappy end you always get in a close match like this, but thankfully they cracked before we did, and we were able to slightly extend our lead before the final whistle. Our team is finally being to take shape, and with two out of two home wins, we just need to figure out how to win away...

Disc Doctors finish tenth in region

Continued from page 28
thinks he was super during that game.

**Disc Doctors 6
Sussex Mohawks 3**

DD showed a lack of focus initially against a Mohawks team which had a few very competent experienced and intermediate players. We suffered from throwaways and drops (Cripple dropped a pitch-length hammer from Magic), but some stunning corner cuts by Stylish, and solid handling from Captain Neville and Magic, raised our game and resulted in a win.

**Disc Doctors 3
Brunel Stop Throwing Discs (STD) I 8**

We knew this was going to be tough. Brunel have some very accomplished handlers, complemented with very nippy tall beginners. We were far too slow in noticing and reacting to their variant of the horizontal stack, and suffered as a result of some cheeky break-force scoobers by Brunel's handlers.

**Disc Doctors 5
East Anglia Aye-Aye II 6**

We went into this one with the wrong attitude. We walked all over this team at outdoor regionals in March, and thought we could do the same again indoors. Things started going wrong as soon as the game started. Aye Aye 2 had many faces we recognised from years before, and put strong pressure on from the start, resulting in throwaways from our men with big throws, and a notable foot point-block against Neville. We traded points for most of the game, we had difficulty

hearing "up" and "man-on" calls because Aye Aye 1 and 2 drowned out all other noise (they won the "loudest team award"), and lost in sudden death.

THE PARTY

After spending an hour walking into Brighton after taking a bus from our host's campus, six of us settled for a KFC fat-feast, while Stylish, Steve-O and Boon hunted down an eat-in curry house. The hosts' party in Brighton's Lectern pub followed. This venue is surely a contender for the 'dingiest pub in the south east award'. It was grotty, half-painted, it had bin-liners for curtains, it had an inexplicably sticky carpet, and the prices horrified our team, which was used to Southside special offers.

Our friends from Thrown (the KCL Ultimate team) invited us to join them at Casablanca Jazz Club on Brighton's seafront. Five of us went along and experienced three and a half hours of amazing funk, sprinkled with some jazzy house, Daft Punk, Jacko, Dee-lite, and the Beastie Boys, served-up by a DJ working behind the front half of a VW Beetle.

DAY TWO

**Disc Doctors 8
Brunel STD II 1**

Our first games on Sundays are historically our worst. We were fortunate, however, and given a bit of space to make mistakes, partly thanks to K-man making several good D's at the back, allowing us a comfortable win against Brunel's second team.

**Disc Doctors 13
Cambridge Strange Blue II 2**

This game involved some seriously sexy play from the Disc Doctors. We had good flow and eye contact, and played our best Ultimate of the weekend. The score-line did not do credit to Strange Blue II, who put up a good fight throughout, in what was a very well-spirited game.

**Disc Doctors 6
KCL Thrown 7**

We were taken aback by the intensity of KCL's offensive play. We could not use lack of indoors practice, lack of experience playing as a team, or even the increasingly dusty and slippery floor as excuses, because KCL were in the same position as us. Points were traded throughout despite top play from Naiff, and the game ended in sudden death, again, with a throwaway close to our zone and quick turnaround from Kings to win the game.

THE RESULT

So we finished tenth in our region. We were served a healthy portion of concentrated humble pie purée last weekend. We've sucked it up, and now we're ready to spit it out. Our outdoor game has always been better than our indoor game, and with the new beginner talent we've recruited and numerous one-day open and student tournaments to be held in London, the Disc Doctors will doubtless soon earn the title of "most feared up and coming team in the south east".



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Mixed fortunes for Disc Doctors

ULTIMATE FRISBEE

South East Indoor Student Regional Qualifiers

By Emmanuel Bennett

It started so well: we all made the same Saturday morning train to Falmer, near Brighton (the home of the University of Sussex, our hosts for the weekend), we had come second in a south east university one-day outdoor tournament a few weeks ago, our teams was packed with experienced players and we'd just collected our first ever tasty yellow and blue club hoodies. If someone had told me that the Disc Doctors (Imperial's Ultimate Frisbee team) ranked tenth in the south east for indoor Ultimate by the end of the weekend, I would have had the same reaction as when I was told a frisbee fits three pints of beer – pure incredulity.

DAY ONE

Disc Doctors 12
Surrey Scorpions 0

We viewed this game against Surrey's first team as a good opportunity to get into our stride. A few dodgy pick (obstruction) calls against Surrey were let go because of the scoreline.

This was a confident performance from the Disc Doctors. Boon made an uncharacteristically poor high throw, but made up for it by making a superb high-reach back-up minutes later. Nathan, at this stage, would like me to point out that he

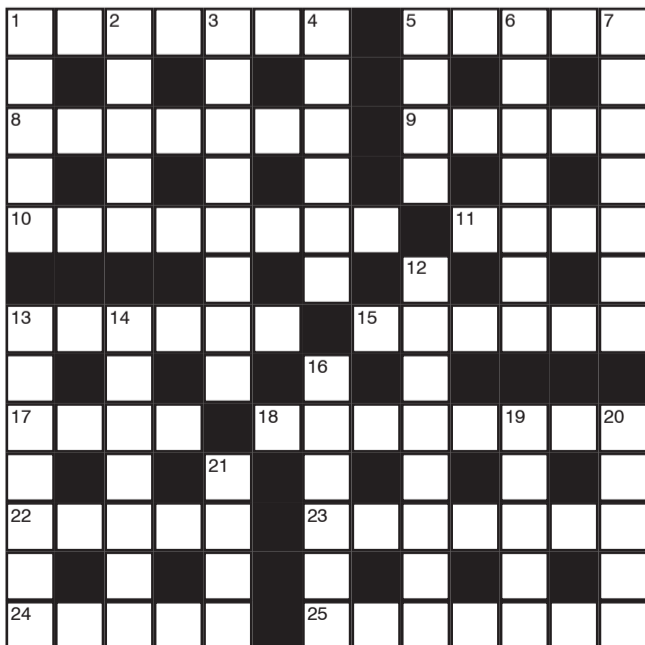
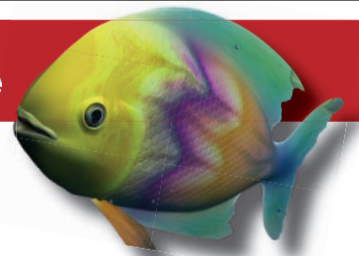
Continued on page 27



A vision in beautiful yellow and blue: the Disc Doctors in a sports hall somewhere near Brighton

Quick Crossword

by Fishface



Across

1. Type of pop group (3,4)
5. Boredom (5)
8. Conquer (7)
9. Decline (5)
10. Sign found at swimming pool (2,6)
11. Bird (4)
13. Follows (6)
14. Alter (6)
17. Small island (4)
18. Practise (8)
22. Throw out (5)
23. Inspector (7)
24. Accessory (5)
25. One catching cattle with ropes (7)

Down

1. Colour (5)
2. Obtain (5)
3. Landings (8)
4. Eating (6)
5. Simplicity (4)
6. Particle (7)
7. Trespass (7)
12. Game (8)
13. Ancient ship (7)
14. Illness (7)
16. Type of soup (6)
19. Beginning (*inf.*) (5)
20. Mistake (5)
21. Sicilian volcano (4)

Send your answers to coffee.felix@ic.ac.uk or bring this page to the *Felix* office in the West Wing of Beit Quad

Issue 1307 solution

