







### **NEWS ROUND-UP**

Huang: A Study in Bronze

Dentistry Dean Joins Pan-European Study

3 • Minds Wide Open

College Builds Schools

Second State Key Laboratory



### DEVELOPMENT -

6 • Size to Reflect Status



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### **COVER STORY**

8 • Shark's Fin Ban



#### RESEARCH

10 • Tracking Illicit Drug Use in Hong Kong

11 • Ketamine – Youth in Denial Over Harmful Effects

Advocate for Basic Law

13 • Computer Crime and Prevention

14 • The Winters of Discontent

• New Technology Brings Hope to Thousands

17 • Rebuilding the University

### **PEOPLE**

Missing Student Records Retrieved



### ART

The Life of a Long Forgotten City

21 • Poetry Promotes Creativity



### **Huang: A Study in Bronze**

**A** bronze sculpture of the former Vice-Chancellor, Dr Rayson Huang, has been unveiled in honour of his considerable contributions to the University.

Dr Huang led the University from 1972-86, during which time enrolment was doubled and the main campus underwent extensive redevelopment.

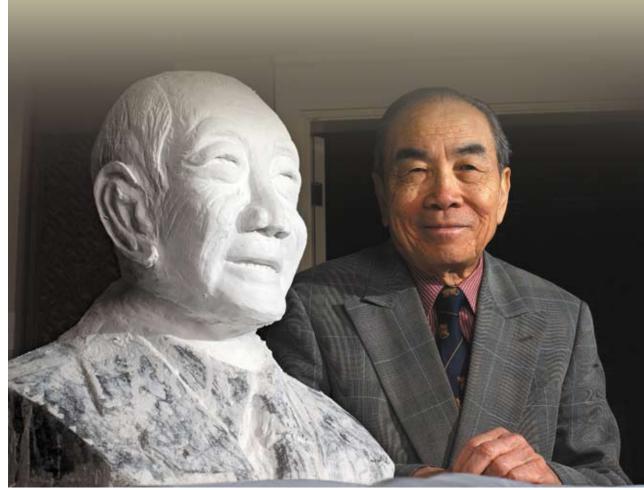
He was also a member of the Legislative Council and Basic Law Drafting Committee (BLDC) and a founding trustee of the Croucher Foundation, among many other achievements.

The sculpture, a bust of Dr Huang, was commissioned by the Pro-Chancellor,  $\operatorname{Dr}$  the Hon. David K.P. Li .

"All of us in Hong Kong owe a great debt of gratitude to Rayson for his tireless efforts on behalf of the University, and the community at large," Dr the Hon. Li said, speaking at a ceremony attended by past and present colleagues of Dr Huang.

Artist She Wai-ming created the sculpture, which has been installed in the foyer of the Rayson Huang Theatre to Dr Huang's ringing approval.

"This sculpture, placed in the lecture theatre bearing my name, has a special significance for me: it will give me a warm, filial feeling that I have a continual presence in my *Alma Mater* at all times, wherever I may be," he said.



Dr Huang at one of the sittings for the sculpture from which the bronze was cast.

# Dentistry Dean Joins Pan-European Study

The University is part of an 11-country investigation into autoimmunity that recently received a Euro 3 million (HK\$28 million) grant from the European Community.

Autoimmunity is when the body's immune system turns on itself. The focus of investigations will be a rare childhood genetic disorder, autoimmune polyendocrine syndrome type 1 (APS 1), the study of which would shed light on autoimmune reactions in general, such as rheumatoid arthritis.

One of the major diseases seen in APS 1 is chronic, candidal infections throughout the skin and nails of affected individuals. Candida, a fungus living in the gut , is harmless to most people. But it causes disease and sometimes death in compromised patients, such as those with APS 1 or AIDS or undergoing radiotherapy.

The Dean of the Faculty of Dentistry, Professor Lakshman Samaranayake who also holds the Chair of Oral Microbiology, will try to establish 'the tipping point' for candida infections using a genetically modified mouse model developed by European researchers. This model has the same defective gene as APS 1 patients. Professor Samaranayake is a world authority in oral mycology and has written more than 300 research articles and a seminal monograph on the subject.

"How this harmless organism becomes a parasite I think is a multi-million dollar question," he said.

Researchers will also have access to a database of patient information developed in Europe, where APS 1 is rather more common than in Asia. Researchers from Australia, Britain, Estonia, Finland, Germany, Ireland, Italy, Norway, Sweden and Switzerland will investigate other aspects of the disease, with the hope of further understanding autoimmune diseases in general and developing novel therapies.



## Minds Wide Open

The Faculty of Education is playing a leading role in helping to train teachers for the new liberal studies programme that will become compulsory in all secondary schools by 2008.

Liberal studies is part of a broader effort to move away from rote learning by promoting the development of enquiry skills and critical thinking, rather than focusing solely on acquiring a body of knowledge.

The Faculty is offering a Master's degree of Education in Liberal Studies from September and a shorter Postgraduate Certificate in Advanced Educational Studies (PCAdvEdStud). In addition there is a Postgraduate Diploma (PGDE) for untrained teachers.

While there is some debate about what constitutes 'liberal studies'—some tertiary institutions have interpreted it to mean students are taught about issues of social relevance using traditional methods—the University is committed to enquiry-based learning.

"The impression we have is that the government likes the flexibility of our programme and approves of the direction that the Faculty is moving in, which not only fits our beliefs but also happens to be consistent with the government's goals," Associate Professor Dr Philip Stimpson said.

The programmes seek to help teachers in the task of encouraging students to look at the assumptions underpinning beliefs, ask questions and find the answers themselves — an approach similar to the problem-based learning used in many other University programmes.

Dr Stimpson said 36 students had been admitted to the liberal studies Master's/PCAdvEdStud programmes this year, from more than 100 applicants. The PGDE programme has 35 students. Demand for places is strong but the aim is to keep numbers relatively low and focus on quality. Liberal Studies involves a change in mind-set on the part of participants, something that can only be achieved through active engagement.

"Teachers need to understand what liberal studies is about and why it's valuable. Our approach is to get into their hearts and minds so we can help them develop into good liberal studies teachers." he said.

Dr Stimpson added that liberal studies had practical impacts because employers wanted students to develop better problem-solving and communication skills.

"The anecdotal feedback from employers is that they tend to find their staff are very knowledgeable, but they are limited as problem solvers. They don't think things through. We would argue that it's not because inherently they can't do it, but they have been conditioned out of it." he said.



MEd Liberal Studies development team. Left to right: Philip Stimpson, Pang Ming Fai, Jeffrey Day.

2

### **College Builds Schools**

**T**he University's oldest residential hall has been exercising its philanthropic spirit by raising a substantial sum to build a new school in Mainland China.

St John's College has attracted \$3,000,000 in donations to help establish a Culture and Education Centre to teach mainly English, in Harbin

This generous gesture follows on from the \$2.5 million raised previously and donated to the Education Department of Harbin's local government to build primary schools and establish scholarships for pupils.

Altogether the College has helped build three schools, each one teaching 300 to 400 pupils, through a fund-raising programme dating back to 2002.

Master of the College, the Rev. Paul Tong, said: "We're planning to raise a total of \$10 million by 2008 so we still have some way to go. We are now in our fourth year of fund-raising so far we have raised \$5,500,000.

"Every year we've raised \$500,000 through very generous private donations. This has allowed us to contribute to 50 per cent of the cost of construction."

Students at St John's College also benefit by having the opportunity to travel to Mainland China and help in the building process.

"They provide the labour," said Tong, "And they have the chance to experience village life and receive political education. We think it's good for them to be exposed to that," he added.



## **Second State Key Laboratory**

The continuing excellence of research at the University has received national recognition with the approval of a second State Key Laboratory in a year.

State Key Laboratories are part of a national network of research centres that conduct top-level basic and applied research and investigate areas of vital interest to China. The University has the only State Key Laboratories outside the Mainland.

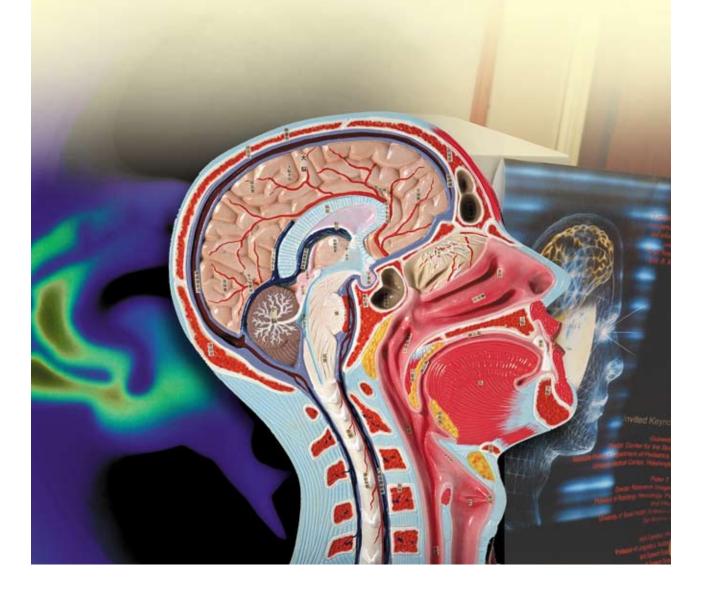
The State Key Laboratory of Brain and Cognitive Sciences is located in the Faculty of Arts and will be a truly multi-disciplinary venture

involving the Departments of Linguistics, Anatomy and Diagnostic Radiology and the Genome Research Centre.

Research will focus on improving human health, enhancing the quality of education and communication, and discovering the neuro-physiological basis of learning and perception.

The State Key Laboratory of Emerging Infectious Diseases, located in the Faculty of Medicine, was approved late last year. Research there is focused on emerging viruses, bacteria, fungi and anti-microbial resistance

Both laboratories were officially opened in late September by the Minister of Science and Technology, Xu Guan Hua.



## Size to Reflect Status

As a cosmopolitan global city Hong Kong deserves at least one world-class university.

And as a comprehensive research-led, English language institution, The University of Hong Kong has been foremost in taking up that challenge.

But despite its standing, the University's growth has been restricted by the compactness of its campus. Indeed its size does little to reflect its status.

So in 2000 the senior management took the first step towards realizing the University's ambitions to grow beyond its current boundaries by unveiling the Millennium Master Plan.

Central to that plan – a living, dynamic document that is being constantly updated and reviewed – is the University's proposal for expanding westwards into an area of almost 14 hectares above Pokfulam Road.

This thrust to the west will provide the University with a greener, more spacious environment that is more conducive to the holistic learning that is our hallmark, while also relieving congestion on the Main Campus.

In these new grounds the University will build new state-of-the-art structures that will increase the current provision of lecture theatres, seminar rooms, common rooms, restaurant and cafes, etc. Also a venue is planned which will have the flexibility to host large and small scale events such as public lectures, cultural events and conferences. A new MTR station entrance, planned for the University by 2012, will bring the campus into the heart of the city.

The expansion will move into an area 'that is currently occupied by nothing more than Water Supplies Department government reservoirs', according to former Director of Land Development, Malcolm McGraw.

Although the reservoirs are currently being used, the plan suggests moving them to the back of the site leaving a vast area free for construction.

Although McGraw, who retired from the University in June after 16 years, has handed the mantle of responsibility to Director of Estates, Kenneth Wong, McGraw nursed the plan from its beginnings back in the late 1990s.

"The scheme that was originally drawn up envisioned us leaving the reservoirs where they are then building a platform over them and then erecting our structures on top of that," he explained.

The team proceeded from that idea towards a blueprint but then decided that the original proposal did not work.

"So we moved to a different concept which is to separate the Water Supplies Department facilities and the University facilities. This was the type of option that was preferred and it's quite a radical change from the original concept. But it's also the most cost-effective," added McGraw.

This latest plan was presented to 16 government departments last December, and all likely objections to the project were considered. Chief among them are environmental issues such as tree loss and habitat destruction for rare species of flora and fauna.

The trees that will be felled are not considered valuable, being imported exotics rather than native woodland, but concedes that a more detailed ecological study of the area will have to be pursued before the plan moves ahead.

The government has, in principle, agreed to help with funding. The cost of the entire project is expected to reach \$2.5 billion. And the University is expected to support a substantial part of that cost through donations and fund-raising efforts.

Although the University retains a certain old-world charm, embodied in its 93-year-old Main Building, the spacious seclusion that once marked it out has been slowly eaten away over the decades

Today, the campus is a tiny oasis of green in a sea of urban sprawl. Its former wide spaces have been filled in with new buildings that welcome increasing numbers of students.

Since the Hong Kong government, under the then Governor David Wilson decided to double the University participation rate from nine to 18 per cent between 1989 and 1995 the University has scrambled to accommodate the influx by 'filling in the spaces' on campus with more buildings and temporary structures.

Changes to the academic curriculum allowing for four-year degree programmes by 2012 will demand even more space for an extra cohort of students.

But despite the urgency of the expansion the philosophy behind the campus Master Plan is not all new. As McGraw explained, the idea extends back to the *Cusdin Report* of the mid-1970s which recommended future expansion of the campus towards the west along Pokfulam Road.

A long-forgotten government land-use map also details the zoning of the Water Supplies land for government and community use and for 'potential use' by the University.

In August 1999 the Institutional Development Sub-committee of the University Grants Committee endorsed the Master Plan and it became enshrined in the University's Millennium Plan one year

Although no final decision has yet been made as to what buildings the Western Expansion will contain, it is understood that lightly-serviced academic departments will be moved into that space in order to contain the overall cost of the Western Expansion.

The Director of Estates, Wong explained that in addition to that the University is proposing small conference rooms, discussion rooms and a heavily-serviced area for information and communication technology to facilitate student learning.

"We're talking about space which can seat a maximum of 1,200 – 1,500 people be used flexibly with demountable partitions which can host public lectures, cultural events, conferences and graduation ceremonies. We want a friendly place for students, staff and maybe members of the public," he added.

"The University envisages making parts of the campus more open than it currently is to the local community. We've started to draw up a schedule of accommodation as to what that might contain but it's early days yet and we need to do a lot of consultation with the likely end users."

The final result will be a campus more akin to those of North America and Europe.

As McGraw pointed out: "It's pretty clear that the current provision has a massive shortfall. We are a long way short in our physical estate in terms of the amount of space we provide per student and academic staff member.

"Our provisions are way less than a North American or European urban university."

But with the completion of the Western Expansion and a new MTR station entrance at the Haking Wong steps it is hoped that the University will not only reinforce its unique identity as a green campus in an urban landscape, but will also achieve its committed goal of becoming one of the top universities in the world.

And as Wong pointed out: "The whole University community as well as the wider public will be consulted to ensure that this exciting project will incorporate everyone's aspirations and dreams."





The University has become the first educational institution in Hong Kong to ban the consumption of shark's fin soup from all its official functions.

The groundbreaking decision was made at a meeting of the Safety, Health and Environment Committee in September.

The new policy follows a proposal, forwarded by Professor Brian Darvell, to consider banning the soup from official functions. The Committee, however, went further and included a clause to ensure that the University does not fund any part of any meal at either internal or external functions at which shark's fin soup is served.

Darvell, of the Faculty of Dentistry welcomed the news and said: "I am delighted. The Vice-Chancellor had told me some time ago that he personally supported such a move, and it is good to see that this has been translated into official policy.

"It remains for the Faculties to make a similar declaration in respect of the monies they have that are not obtained from the University centrally and which may be used for what are termed 'unofficial' functions.

"I also look forward to this statement being followed by similar decisions by the other tertiary institutions."

And he added: "Every such small step is to be welcomed as an intelligent contribution towards the solution of a global problem. Courage, commitment and rationality; the example set is to be warmly applauded."

The Registrar, Mr Henry Wai, explained that the University has long been committed to sustainability.

"And the decision we have taken demonstrates our resolve to contribute to help to protect biological diversity in accordance with this commitment.

"As the senior tertiary educational institution in Hong Kong, we should set a good example. We hope not only to encourage our own students, staff and alumni to eschew shark's fin dishes at all times, but also to give a lead which others in Hong Kong will follow," he added.

Mounting evidence shows that sharks, which have prowled the oceans for 400 million years, are now being slaughtered at an unprecedented rate.

A staggering 100 million sharks are butchered annually. Estimates from test sample areas and mathematical models by the US National Marine Fishery Service suggest that five species of shark, including the great white and hammerhead, are now nearing extinction.

Since the 1980s sharks have been the victims of a global gold rush. As China has grown richer and its wealthier citizens have been able to afford luxuries that were once off the menu, the US National Marine Fisheries Service has encouraged fishermen to enter the shark fishing industry. The Service has referred to sharks as an 'underutilized resource' and have freely handed out the name cards of shark's fin dealers.

The resulting effect on shark populations has been devastating. Leading shark expert Sarah Fowler told Britain's *Independent* newspaper, earlier this year, that 'if you take a population and half it, it can take 270 years to bounce back. We won't see the recovery of some of them in our lifetime.'

As prehistoric predators at the top of the marine food chain sharks have no natural enemies in their own environment. This means that their rate of reproduction is slow. It can take up to 15 years for a shark to reach sexual maturity and even then the female will reproduce just one or two pups a year after a long gestation period of 22 months.

But a shark's fin can net a fisherman HK\$200 a pound. Globally, the industry earns US\$240 million for suppliers a year. The exorbitant price of shark's fin has ensured that the trade is vehemently defended by the catering sector.

And despite bans by Hong Kong Disneyland – which bowed to international pressure this summer to not serve shark's fin soup in its restaurants – and boycotts by Cathay Pacific Airlines and Mastercard, Hong Kong remains at the centre of the trade.

According to the US-based Wildlife Conservation Society, Hong Kong handles up to 85 per cent of the world's shark fin imports. This city alone consumes an estimated three million kilos of shark annually.

The movie, *Jaws*, a terrifying thriller featuring a cool and calculating killer in the guise of a great white shark, gained instant cult status when it was first released three decades ago.

But as the first film to gross over \$100 million it did more than break box-office records. It also caused a wave of shark hysteria that has hardly abated in the 30 years since. It also did more to devastate the creature's image than any number of shark attacks could have.

Stephen Spielberg's classic drove to the centre of man's primal fear of the unrelenting predator and unwittingly instilled a universal terror of sharks.

Today that terror has transformed almost every breed of the elusive creature into the evil rogue of the oceans.

But despite the persistence of the man-hungry myth sharks killed seven people worldwide, last year, the year before they killed four and three in 2002. Some of those deaths prompted revenge hunts

But even Peter Benchley, author of the book that inspired the *Jaws* movie, has since voiced his regret at the damage caused by the myth of the blood-thirsty voracious man-killer and has become a shark activist. In 2002 he released a new book, *Shark Trouble*, to educate the public about this mysterious creature.

It is hoped that the University's stand will go some way towards educating others to follow suit and encourage other institutions to consider implementing a similar policy.

# Tracking Illicit Drug Use in Hong Kong

In Lan Kwai Fong, an interior designer specialising in nightclubs has heeded the demands of her clients and installed a ledge in toilets for chopping up cocaine. And just in time, for cocaine is in fashion.

That is one of the many findings on local drug use that Dr Karen Joe Laidler, Associate Professor of the Department of Sociology, has gathered in her 10 years of researching the subject. Since her arrival in Hong Kong in 1995, when the stereotypical drug user was a working class male on heroin, manufactured drugs such as ecstasy and ketamine have burst onto the scene and changed the nature of drug use here.

More women and young people now take drugs. Instead of meeting in dingy rooms or back alleys, they indulge in drugs in nightclubs and, increasingly, karaoke lounges. Triads are predictably involved.

"Hong Kong has always been a heroin society, but in the late 1990s ecstasy and other manufactured drugs rapidly became prevalent. The proliferation of these new drugs is a reflection of what has happened globally," Dr Laidler said.

When she first arrived, police seizures of ice (methamphetamine) had increased slightly and she suspected there was more behind the story – a reasonable suspicion given that recreational drug users often fall outside the radar of police, hospitals and social workers. And indeed, the drug scene in Hong Kong changed rapidly by the latter half of the

Dr Laidler and her researchers have interviewed users and sellers to help profile the drug market, drug use in clubs, women and drug use, and drugs, crime and violence for the United Nations and government, as well as for a long-term University project on violence.

Their findings show that ecstasy and ketamine have become popular nightclub drugs, especially in trendy Lan Kwai Fong and Soho, and cocaine use has risen, in part because some users are looking for alternative experiences due to the deteroriating purity level of ecstasy. Ketamine, an hallucinogenic considered to be the 'poor man's cocaine', is the drug of choice in Mongkok and Shenzhen.

About one-third of ecstasy and ketamine users are young women, as against 23 per cent of heroin users. For ice, young women represent over 40 per cent of ice users.

Drugs like ice, ecstasy and ketamine appeal to women because they appear to lose weight and they are told by their friends that these drugs are not addictive and have no short- or long-term health consequences. (There is competing evidence that ecstasy is harmful and ketamine is still being researched, but long-term use of ice has been associated with paranoia, social isolation and aggressive behaviour.)

Other motivating factors include hearing friends talk about the positive attributes of the drug, as well as curiosity and boredom and the fact the drugs are cheap.

"The increase in the number of women and young users has not yet resulted in extensive social problems, but it has raised health questions about whether young people understand how to minimise the potential harm to themselves from using drugs," Dr Laidler said.

There are reasons for concern. About 21 per cent of users of ice – which has serious long-term effects – are aged 21 and under. Young people are also starting to report that they use ketamine in school because they are bored. This mirrors trends in other societies, where a drug initially taken in leisure is brought into other areas of people's lives, she said.

"The broader context for drug use is that globally, the life course has changed for people and adolescence is prolonged," Dr Laidler said.

"A lot of research shows that young people live at home longer because they can't afford to live on their own, they're expected to be a young person for longer and their schooling is prolonged. They're uncertain about their future so they say to themselves, I may as well enjoy myself now because who knows what the future holds."

Nightclubs and karaoke lounges can be appealing settings for women and young people to test out drugs. Recently, club 'hosts' have been visiting tables asking if patrons want to supplement their beverages with drugs. Dealers either tend to work for club doormen or act as 'freelancer' who give the doormen a cut. Although the clubs are often managed by people with triad links, violence is not a problem as ecstasy and ketamine users do not tend to get involved in crime or violent behaviour.

## Ketamine – Youth in Denial Over Harmful Effects

Users of ketamine tend to think the drug is harmless, but a University study has found they experience physiological, cognitive and psychiatric impairments, even after as little as one month of use.

Ketamine is a white powder that produces a hallucinogenic, floating effect in users. It is popular with young people, who tell each other the drug is harmless. But they are deceiving themselves, according to Hon. Clinical Assistant Professor Dr Ronald Chen Yuk Lun, who conducted the study for the Department of Psychiatry.

Dr Chen examined 95 admitted users and 26 non-users for signs of physical and psychological dependence on ketamine. Some 76 per cent of users showed symptoms of dependence, such as needing to take more of the drug to get high and suffering fatigue, irritability, aggression, sleeping difficulties and depression when they stopped. These symptoms appeared within an average of one year of starting ketamine use, but as little as one month.

"This is contradictory to the common misconception of young people, that the only dependence is psychological," Dr Chen said. "Actually there is a high potential for physical dependency and there are harmful effects on the brain."

Thirteen per cent of users had a depressive disorder, compared with three to five per cent in the general population. Another six per cent had drug induced psychosis such as hallucinations and delusions.

Ketamine users were also more likely to have impairment of fine motor skills and had more difficulty with task organisation and grouping things into categories for memory-based exercises.

"They are young, they should have good memories and learn a lot of things easily," Dr Chen said.

He admitted the group of users was 'fairly severe' as they had an average of only nine years of education, 33 per cent were unemployed and half of them had a criminal record. The average age was 20 and they had taken the drug an average 366 times, from as low as 15 times to 2.000.

"The thing is, we wanted to demonstrate that ketamine has some effect on the mind. Some people had only taken it several times and still they had problems," he said.

The two-year study was funded by the Narcotics Division of the Hong Kong SAR Security Bureau and completed last year. The findings formed the basis of a public education campaign on ketamine. Dr Chen is now in private practice.



10

## Advocate for Basic Law

**S**imon Young is an unlikely campaigner for the full release of Basic Law documents, an issue of recent heated debate. Softspoken and unassuming, he has spent most of his life in Canada. Yet those qualities may give him an advantage in his task.

While various camps have argued over whether Basic Law

drafters should 'record' their intentions for the record, he has quietly been gathering the documented information already available. He has also been meeting with individual drafters to see if they can help him source more material.

Some documents, in particular the minutes, reports and other papers from subgroups of the Basic Law Drafting Committee, have been kept under wraps by Beijing. Mr Young, an Associate Professor in the Department of law, believes this is no longer justified.

"At the time [of the drafting], secrecy was a very big issue. It was considered important to have confidentiality so as not to interrupt the flow of discussion. I can understand why they did that, but it's been over 15 years since the initial drafting. I don't see the justification now for secrecy," he said.

Mr Young has hooked up with Alan Hoo, founder of the Basic Law Institute, in his quest to assemble a complete drafting history of the Basic Law and put it on the Internet. Mr Hoo worked with the Hong Kong government to open a public library late last year based around his acquired collection of papers. Mr Young and his researchers have scoured this resource and other libraries to see what is available, and are now uploading 20,000 pages of documents onto a website that will launch early next year.

The University's Strategic Research Areas fund provided a seed grant of \$333,124 for the project, which Mr Young coconvenes with Professor Yash Ghai, Professor: Sir Y.K. Pao Chair of Public Law. Collaborating with 10 other academics from the University and Tsinghua University law school, the project will also

result in a Basic Law bibliography and casebook for students.

Mr Young said the missing sub-group papers were essential to clarify misunderstandings over such issues as the term of the Chief Executive. In the debate earlier this year over the term of Tung Chee-hwa's successor, the Secretary for Justice Elsie Leung changed her position based on classified drafting history documents.

"If these documents are so powerful that they caused her to change her opinion, they must be important," he said. "It's hardly the case that these documents are state secrets. The definition of 'state secret' is fluid, but I don't think you can argue it in this case."

Apart from lobbying drafters and trying to gain Beijing's ear, Mr Young hopes the momentum of the website will encourage the release of more documents.

"Once we get the digital resource up and running, people will see that for certain meetings and dates, there is an absence of documents. And it will show how much material is already publicly available, because some documents make reference to discussions in sub-groups. Hopefully that will serve as a catalyst to bring attention to this issue," he said.



## Computer Crime and Prevention

Computers have become a plentiful source of urban horror stories, of bank accounts illegally accessed, identities stolen and pornographers given a new lease of life through the anonymity of downloads. The prospect of preventing and solving these complex crimes compounds the nightmare.

Now, our researchers have stepped into the breach to offer some solutions to Hong Kong computer users. Two programs have been developed, one in conjunction with the Hongkong Post, the other with the police, to protect users and detect crime.

The e-Cert FileGuard supports use of the Smart ID Card, which every resident age 11 and over must carry. The program enables cardholders to send and receive documents over the Internet confidentially, maintains the data integrity of these documents, shows the documents are from trusted and recognised senders, and ensures senders cannot deny what they have sent. It is expected to enhance e-commerce activities in the business sector and among individuals over the Internet.

"A [hand-written] signature is not 100 per cent proof because it can be forged, but the e-Cert FileGuard cannot be forged," Dr Paul Cheung, Managing Director of Versitech Ltd, the whollyowned University technology transfer company which launched the program, said.

"I think it will take time for this to catch on, but most people don't realise that through e-mail and so forth, they are actually

At the other end of the problem is the need to catch fraudsters. The Centre for Information Security and Cryptography, which developed the technology used in e-Cert FileGuard, has also devised a digital detective to aid police work.

The Digital Evidence Search Kit (DESK) was first developed a few years ago, but it has been updated to make it multi-lingual – it can now read Chinese-coded files – and improve its effectiveness in police work and in courts.

Investigators can use the new DESK to retrieve deleted documents, such as files of illegal transactions, by looking for clues and copying files. Police work from the copies and the original information is locked to prevent tampering, a requirement for evidence submitted in court.

"The police were involved in the development of the program. They gave us their requirements, the main functions they needed, and their user interface specifications," Associate Professor Dr Chow Kam Pui of the Department of Computer Science said.

The program also has applicability in the classroom where it will be used as a teaching tool for students pursuing an MSc in E-commerce and Internet Computing degree.

Dr Cheung added that projects like DESK and the e-Cert FileGuard were examples of how the University's academics applied their research to develop products of benefit to society.



## The Winters of Discontent

At a time when global warming and its repercussions is becoming a cause for concern for governments across the world, a team of University researchers has revealed the havoc wrought by climate change in China down the centuries.

Based on the macro-scale study of the recorded wars in China between 850 and 1911, Associate Professor Dr David Zhang and his team, in the Department of Geography, found that climatic cooling may well be the underlying mechanism in driving the war and peace cycle in history.

Their research establishes an important link between man and nature and suggests that in the past the climate has been very influential in shaping human history.

When global cooling occurred between the Tang and Qing Dynasties the number of wars in China increased significantly, sometimes doubling in number, populations crashed and dynasties were overthrown. The team believes the reason for such chaos can be blamed on failing harvests and the subsequent lack of food.

Many studies have attempted to assess the causes of war but none has tackled, scientifically, the relationship between armed conflicts and climatic change.

By comparing high-resolution paleo-climatic reconstructions with war records the University team was able to prove the effects of climatic change on China's past social stability.

Researchers at the Nanjing Academy of Military Sciences have compiled a multi-volumed compendium of wars that occurred in China detailing the year of inception of each war, its type and its location

Using this important resource, together with the latest paleoclimatic reconstructions and other related historical records, the team found that populations expanded significantly during warm climatic phases when food was plentiful. But subsequent cold phases caused harvests to fail resulting in ecological stress on societies.

This stressed relationship between man and nature led to more frequent wars between states, regions and tribes which often resulted in the collapse of dynasties and a further loss of human populations.

The team also found that the association between climatic change and war inception varied from region to region. It is much

closer, for example, in Central China than in the north and south.

For almost half of the period studied China was controlled by northern nomadic tribes who moved freely to the south. Food was also transported north so that the socio-ecological stress in Northern China during cold phases could be alleviated.

In Southern China, although climatic cooling may have been severe enough to affect cropping, non-staple foods were available to alleviate the problem. So social stability in the south was less sensitive to cooling.

The situation in Central China, however, was somewhere between the two which made the area relatively vulnerable to the ecological stress engendered by climatic change.

The livelihood of China's people was based mainly of agriculture which was very much dictated by the whims of nature. The yield during a cold phase could drop by 10 – 25 per cent due to a shortened growing season and more frost.

"This would trigger famine and rebellions that would have a weakening effect on state power," explained Harry Lee, a PhD student who collected the data, analysed it and wrote the report.

"It is notable," he said, "that rebellions were predominantly mobilized by peasants. The three highest peaks in the frequency of war were also three of the most notable peasant rebellions in China's history – the Late Yuan, Late Ming, and Taiping."

A significant effect of the Taiping rebellion, in the 1850's and 1860's, was that the country's population dropped dramatically from 440 million to 360 million in 15 years. This had a huge effect on the agrarian workforce forcing production down even further.

The team's research paper, entitled Climatic Change, Social Unrest and Dynastic Transition in Ancient China, was recently published in China's most prestigious academic peer-reviewed journal Chinese Science Bulletin. Another research paper, entitled Climatic Change, Wars and Dynastic Cycles in China over the Last Millennium, has also been accepted by Climatic Change, one of the most influential academic peer-reviewed journals in the field.

Traditional wisdom explains the fundamental causes of war as economic, political, ethnic and, more recently, environmental.

But the team's findings suggest a new interpretation of the relationship between man and nature and are perhaps an indication of the dire implications of the global warming. "Global temperatures are expected to rise faster and faster in the foreseeable future and the impact of this will be fairly unpredictable because both natural and anthropogenic forces will be involved," said Lee.

"In spite of technological advances, most of the world's population still relies on small-scale agriculture, which is just as vulnerable to climatic fluctuations as the historical societies studied here.

"Furthermore, in an increasingly populated world, habitattracking as an adaptive response will no longer be an option.

"In the last century, subject to the speedy advancement of industry, people have often overestimated their power to rule over the nature. One related phenomenon has been the dominance of humanism in the fields of war studies, social sciences, and history in the last few decades.

"However, history itself tells us that the vicissitudes of nature have very much dictated at the macro-scale the fluctuating fortunes of human societies, adding a new dimension to the study of Darwinism. And he added: "Even if food supply problems don't arise in highly developed societies, the shortage of other essential resources due to climatic change, such as fresh water, land, energy and minerals, plus the endless demands for a higher standard of living, could very likely trigger armed conflicts."

The team concluded that further research is needed to assess the possible conflicts that may occur as a response to underlying global warming, particularly at a time when the human population has reached such a dangerously high level in a world where resource supplies are stressed.

According to Lee it is only by studying the impact of past climate changes on society that we can hope to be able to predict the future impact of global warming on human societies.

The intention now is to expand the study to other parts of the world starting with Europe.



## New Technology Brings Hope to Thousands

Kelvin Yeung with the research team.

**A** pioneering post-doctoral student who helped develop a revolutionary idea to correct scoliosis has won the Hong Kong Young Scientist of the Year Award.

Dr Kelvin Yeung beat off stiff competition from seven local universities to clinch the Hong Kong Institute of Science prize, winning in the Physics panel.

His research – supervised by the spinal team which includes Professors Keith Luk and John Leong, Drs Kenneth Cheung and William Lu (from our Department of Orthopaedic and Traumatology), Professor Paul Chu and Dr Jonathan Chung (from the City University of Hong Kong) – involves using a unique lightweight flexible metal to correct severe curvature of the spine.

The metal – nickel-titanium alloy – is usually used for spectacle frames and water valves, has the unique property of becoming soft and malleable at low temperatures but gradually returns to its preset shape and becomes super-elastic as temperatures rise.

The current method used to correct scoliosis only has a 70 per cent success rate and involves pulling the spine straight by hand then 'locking' it in place with a titanium or steel implant.

Although the correction is instantaneous, Yeung said the operation is risky and may result in spinal fracture or neurological damage.

"The success of the operation depends on the skill and experience of the surgeon."

The newly-developed method, which has so far seen a 90 per cent correction rate in animal models, involves fitting the deformed spine with a 'soft' nickel-titanium frame which takes advantage of the metal's memory and super-elasticity to realign the patient's spine.

"This alloy has two properties," explained Yeung. "It has a memory effect and is super elastic. If we put it in the fridge it becomes soft and very malleable like clay.

"But at body temperature it has the ability to return to a preset shape so this makes it ideal for correcting scoliosis. The spine bounces back gradually."

The alloy was first developed by the U.S. Naval Ordinance Laboratory in the 1970s but in 1998 our University team modified it, making it malleable at room temperature and super-elastic when exposed to human-body temperature.

"This is a novelty that we developed at HKU and has since been patented in U.S. and patent registration is progressing in Europe and Asian countries. We have spent the last seven years testing it to make sure it's safe for use. We did a lot of testing both mechanical, with animal models and in cell culture to see if the metal is bio-compatible so that the material can be applied not just in scoliosis but also in healing bone fractures and in minimal invasive surgery for spinal fractures," said Yeung.

One problem with the nickel-titanium alloy has been the fact that nickel is extremely toxic to the human body. But, interestingly, the titanium blocks the release of the nickel through strong chemical bonding.

"But this means we have had to thoroughly test the alloy to ensure that it can stand up to wear and tear to ensure that it doesn't leach nickel."

Working together with a team from the City University's Department of Physics and Material Science they were able to modify the surface making it more bio-compatible and less prone to wear and tear.

Scoliosis affects more than three per cent of the population worldwide and is most common in girls. Yeung said their department alone sees six to seven hundred new cases every year.

"The cause of the condition is unknown. It may be genetic, neurological or muscular. What we do know is that most cases occur during adolescence. A child might appear perfectly normal and may have no signs of future problems but when they hit puberty this curvature suddenly appears and gets gradually worse."

Surgery is usually postponed until a patient reaches their teens and then, due to its risky nature, is only performed in very severe cases.

If successful this new technology, which will undergo human clinical trials at the end of this year, could change the lives of thousands of people in Hong Kong alone.

## Rebuilding the University

Former Assistant Registrar, Adrian Rowe-Evans, offered a fascinating glimpse of the immediate post-war years at the University in a talk he delivered in May.

His recollections provided a rare insight into a rapidly-changing period in the University's history. Indeed the decisions made during Rowe-Evans' tenure in the early 1950s laid the foundation of the University as it is today.

Arriving in 1951, from the University of London where he had held an administrative post, Rowe-Evans realized immediately that he knew almost nothing about Hong Kong, China and Chinese people. "And had little idea about the problems and prospects of a university in Hong Kong."

He recalled that the future of the colony itself was problematic at a time when the Second World War and Japanese invasion had severely upset trade with the Mainland.

"China had become an aggressive revolutionary country whose future course was imponderable," he told an audience of HKU SPACE (HKU School of Professional and Continuing Education) alumni.

"Even in 1951, Hong Kong was beginning to recognize that the present state of affairs could hardly continue beyond 1997, when the lease on the New Territories would expire.

"In China, Communist ideals and practices were in conflict with traditional social and political values and it was not as yet absolutely clear that the new ideas would prevail.

"The British hegemony in the Far East had also been fatally compromised during World War II. In fact none of the certainties on which The University of Hong Kong had been founded were any longer sure, some not even credible," he recalled.

It was into this environment of uncertainty and rapid reconstruction that Rowe-Evans found himself thrown. The Registrar Bernard (Bunny) Mellor had worked, for many years, with little administrative support and, upon Rowe-Evans' arrival, 'departed on much-needed and long-overdue leave.'

Both Mellor and the Vice-Chancellor, Sir Lindsay Ride, were essentially learning the administrative ropes, neither of them having held such positions previously.

"We struggled on, all working terribly hard and slowly finding out what we needed to know," explained Rowe-Evans.

It had been decided that the University should aim at international status and the task of recruiting staff from all parts of the world began. A Professor of Architecture, Gordon Brown, was appointed to take charge of the campus building programme, which involved the extension of the Main Building and the construction of the Chemistry Building, which occupied the site of the current Kadoorie Biological Sciences Building.

To establish a closer relationship with students and gain their feedback on the education provided, Rowe-Evans took daily Cantonese lessons, became warden of the non-residential hall and joined in sports and amateur theatrical activities.

Today he recalls the idyllic nature of the University campus at that time as a 'Paradise Lost'. It was 'a beautiful and romantic place, with spacious colonial buildings, around a jewel-like central green, offering unobstructed views across the harbour.'

His experience in Hong Kong proved invaluable to his later employment in Africa and at the then new Warwick University.

"I also found that Hong Kong was a dynamic place in which if you had a good idea you had an excellent chance of doing something about it." Some may say that, in that sense, little has



## Missing Student Records Retrieved

Long-lost documents relating to one of the most unusual periods in the University's history have resurfaced after almost 50 years.

Thanks to the determination of Dr Peter Cunich, Head of the Department of History, the remarkable wartime efforts of Professor Gordon King, former Chair of Obstetrics and Gynaecology and Dean of the Faculty of Medicine (1940–49 and 1951–54), will now form an invaluable part of the University's archive.

The documents detail the minutiae of the wartime degrees pursued by the University's students who escaped into Free China after the fall of Hong Kong on Christmas Day 1941.

"This is an important part of our missing student record," said Cunich who went on to explain how the papers were recovered.

"About five years ago I wrote to Gordon King's widow asking her if she knew where these were. At the time she was becoming very elderly and frail and couldn't help. So I'd given up on ever finding them.

"And then when Mrs King died earlier this year the University was in touch with her niece, Mrs Patsy Toh to try and find the papers in Perth, where Mrs King had retired.

"So with the permission of Professor King's three daughters and Mrs Patsy Toh we have received a folder full of original correspondence relating to wartime degrees, the students who had applied for wartime degrees, the minutes of the committee that was in charge of wartime degrees and original correspondence between London and Chunking.

"All of the materials, in effect, that Gordon King had used in writing his report about the medical degrees during wartime, but which had been lost to the University when he retired."

At the outbreak of war in December 1941 the University had approximately 600 students in four faculties - Arts, Science,

Engineering and Medicine – many of whom volunteered for the University Relief Hospital. But by the end of June 1942, when the campus had been taken over by the Japanese, only 50 students remained.

And nearly all of them fled to China where, thanks to King, they were able to continue their studies at Chinese medical institutions and universities.

King, with the help of a guide, had escaped the territory via Kukong and Kweilin to the wartime capital of Chunking in February of the same year. There he set about helping the University's students make the arduous journey to the capital and then placed them at appropriate universities to continue their studies. In all, a total of 346 students, more than half the student population, reached Free China

"Chunking became the nerve centre for HKU in China at that time," said Cunich.

King, who took up a visiting professorship at the National Shanghai Medical College which had been re-established outside Chunking, kept detailed records of HKU students on index cards. He included their names, which ones had escaped from Hong Kong, their method of escape, particulars of their academic studies, their plans for the future and the university which they ultimately entered

"A separate record was also kept giving particulars of the financial assistance each student received," explained Cunich. "Sadly, these students' record cards have never been recovered."

At the end of the war many of the medical students returned to Hong Kong

As Cunich explained: "Most of the engineering and arts students had taken their degrees in China by the end of the war

and did not need to come back to the University as their degrees were accepted internationally.

"Many of the medical degrees obtained in China, however, were not recognised by the British Medical Council, so the students had to come to HKU to finish their degrees in order to be able to work anywhere in the British Empire.

"Gordon King was important again because he had to collect all the academic results for these students, process them and decide whether they could immediately be given HKU degrees or whether they had to do further study first.

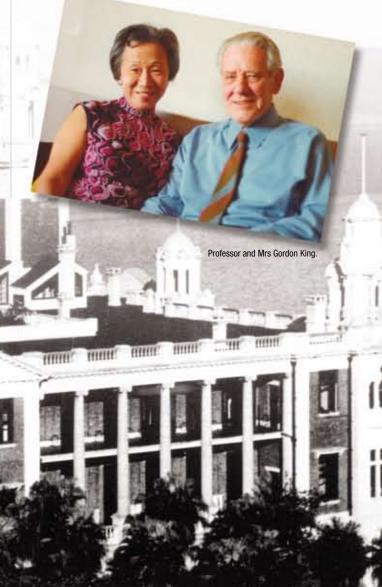
"He was a really great man. Almost single-handedly he ensured that HKU had a continuity from pre-war to post-war years."

King, who had first arrived at the University in 1936 went on to become Dean of the Faculty of Medicine and Pro-Vice-Chancellor from 1954 to 1956. He then retired to take up the position of Foundation Dean of the Faculty of Medicine at the University of Western Australia (UWA).

In 1965 he retired from the Chair of Obstetrics and Gynaecology at UWA and moved to the University of Nairobi where he was Foundation Dean of the Faculty of Medicine from 1966 – 69.

"His contribution to medicine and the British Empire in the period of de-colonisation was very significant. And thanks to his records, and the generosity of his family in donating them to our archive, we now have a more complete picture of that turbulent time in HKU's history," added Cunich.

Any readers who have materials (particularly the still-missing wartime student record cards) that they believe may be of value to the University should contact the Registrar, Mr Henry Wai.



## The Life of a Long Forgotten City

An exhibition of stunning photographs by renowned photographer Hedda Morrison was unveiled at the University's Museum and Art Gallery in September to coincide with the launch of a new book of her work.

Hedda Morrison's Hong Kong: Photographs and Impressions 1946-47 by Edward Stokes offers a unique glimpse of a year in the life of a long forgotten city. It brings together for the first time hundreds of Morrison's black and white prints in one volume.

The publication is the result of a labour of love by author Stokes who came across 20 of Morrison's photographs in a government publication while browsing the University Libraries' Special Collections.

That chance discovery was made ten years ago in 1995 and his long search for her original negatives led finally to the Harvard-Yenching Library and Harvard University to which her husband had bequeathed much of her work.

Both institutions, along with the Hong Kong Conservation Photography Foundation and the University Museum and Art Gallery, have been instrumental in bringing about this exhibition.

The collection of more than 80 shots taken between 1946 and 1947 represents the most complete pictorial record of the way Hong Kong looked between the 1930s and 1950s.

Born in Stuttgart, Germany, in 1908, Morrison developed a passion for photography upon receiving her first camera at the

age of eleven. She later abandoned her medical studies and enrolled in the State Institute for Photography in Munich.

After completing her studies she travelled to Peking in 1933 to manage a commercial photographic studio and, on completing her contract a year later, remained in the city to work as a freelancer. She made a living selling prints and albums of Peking to wealthy overseas visitors.

It was here that she met her husband Alastair Morrison and together they travelled to Hong Kong in 1946 where they spent six months before relocating to Sarawak and finally Australia.

Morrison's photographic interests lay in the lives of everyday people, their work, their customs and their environment. She made a point of traversing Hong Kong's coastlines, valleys, inner city and outlying districts and captured compelling shots of workers haymaking, harvesting, ploughing and fishing along with panoramic views of Hong Kong island and simple street scenes.

Despite her prolific output fewer than 30 of the photographs published in this book have been seen before. Sadly, Morrison passed away in 1991 at the age of 82, but her valuable photographs have finally been returned to their place of origin; the exhibition celebrated the deposit of her prints in the University Libraries' Special Collection.

Hedda Morrison's Hong Kong: Photographs and Impressions 1946-47 is available from Hong Kong University Press.



# Poetry Promotes Creativity

At a time when schools are striving to promote creativity, poetry workshops are seen as one way of helping children get their creative juices flowing.

So this year for the first time the University's Moving Poetry project offered summer creative writing workshops to children aged between ten and 14, encouraging them to weave poetry into their playtime, experiment with language in its various forms and explore new ideas. And the kids loved it so much some were reluctant to leave.

Course co-ordinator Monica Zionede-Hall said: "Some of the children were in tears during our last session. They really didn't want this to be the end of Moving Poetry for the summer."

The classes are offered by our Department of English to kindle a passion for scribbling and enhance students' communication skills and self-confidence, thus helping them throughout their studies at school.

The summer workshops encouraged students to explore their senses and observe the sights, smells and sounds around them and convert their observations into poetry.

"The classes encouraged the children to think outsides the box and see things in different ways," said Zionede-Hall.

"Lots of parents wrote to us after the workshops to say their children are more confident now," she added.

The brainchild of poet and author Shirley Geok-lin Lim, Visiting Professor, the project was launched four years ago to promote writing in English for students and teachers. Today it is co-directed by Associate Professor Dr Elaine Ho and Assistant Professor Dr Page Richards and has proved remarkably successful. In its first year, original work by students was featured on buses running across Hong Kong, thus inspiring the project's title, *Moving Poetry*.

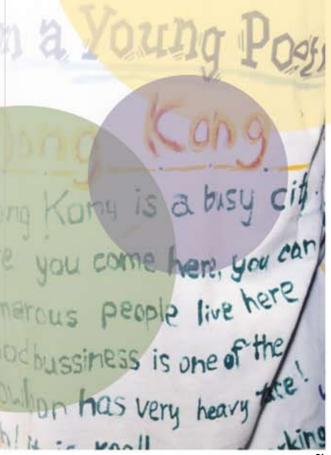
Since then it has branched out to include a series of small and continuing workshops, summer classes and a new website featuring the poetry written in class and an interactive site for visiting poets.

Inspired by the belief that the fundamentals of poetry and self-expression can be taught at any age the Department also offers workshops to teachers giving them suggestions that can be easily adapted to the classroom. These are now held in the Department's new dedicated Creative Writing room in the University's Main Building.

This summer's workshops for children, all led by published poets, were the first to be self-funded and were heavily oversubscribed.

Ten-year-old Lydia Liu who attended the classes said: "I found the poetry workshop quite useful. I learnt how to write poems and to recognise different kinds of poems."

Her mother Mrs Karen Liu added: "I think it helped her to think more creatively and to express herself and her feelings more clearly. Lydia is already quite confident in speaking and writing English but she has never had the opportunity to write poetry at school so this gave her the chance to try another kind of writing."



20