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THE UNIVERSITY OF HONG KONG



**Breathing
New Life into
an Ancient
Art Form**



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New Donation Fosters Development

The University's campus and academic development has received a major boost with the donation of \$400 million, from Dr Cheng Yu-Tung, Chairman of New World Development Company Ltd.

Speaking at a cheque presentation ceremony, Dr Cheng referred to his relationship with the University saying: "It goes back to 1997, the time when I began supporting the Faculty of Medicine in the form of student scholarships. Since then many mainland medical professionals have been trained.

"When I first knew that the University had embarked on building the Centennial Campus to meet its strategic development plans, I wanted to make my contribution to HKU so that the new campus could be built as scheduled.

"All of us know that the Faculty of Law was established 39 years ago and has fostered many outstanding lawyers. I hope that my donation can not only be beneficial for the future development of the Faculty of Law in nurturing local talent, but can also contribute to the Rule of Law of our country, and to its future prosperity."

Professor Johannes Chan, Dean of the Faculty of Law, thanked Dr Cheng for his gift saying it would greatly aid the Faculty's five-year



development plan. It would also support other projects such as recruiting world-class teachers and scholars, establish scholarships and facilitate research and training in arbitration and dispute resolution.

Council Chairman, Dr Victor Fung, expressed his gratitude to Dr Cheng saying: "We believe this is a great investment in tertiary education in Hong Kong. Most importantly it offers the utmost encouragement to each member of the University."

In recognition of his generous gift the proposed new Faculty of Law building, to be constructed on the Centennial Campus, will be named the Cheng Yu-Tung Building. The Campus is scheduled for completion in 2011/2012.

Quake Prompts New Initiative on Catastrophe Management

In response to the recent Sichuan earthquake HKU experts have joined hands with the Beijing Normal University (BNU) to launch a large-scale Catastrophe Management Initiative.

The pioneering joint initiative will address all aspects of catastrophe management, from rehabilitation to reconstruction and redevelopment, at both policy and practice levels.

The two Universities expect their collaboration to establish a knowledge base for future catastrophe mitigation and management.

Professor Chow Shew Ping, Pro-Vice-Chancellor and Vice-President of HKU, and Professor Han Zhen, Vice-President of BNU represented both Universities at the signing ceremony. Professor Chow said the initiative would focus on "research, education, action, capacity building and ultimately knowledge generation."

"HKU members boast a very wide spectrum of expertise across various academic disciplines and professions," he said. "Since the Sichuan earthquake occurred on May 12, many of our colleagues, students and alumni have initiated fundraising activities, and have been

engaged in voluntary or professional works at the quake-affected areas.

"While the immediate relief work is still going on, universities, as knowledge hubs, should contribute their expertise not only to the short-term redevelopment of the quake areas, but also long-term knowledge-based catastrophe management worldwide," he said.

Dr Braven Zhang Qiang, Research Professor of Institute of Social Development and Public Policy, BNU, believed that the comprehensive expertise and extensive global connections of both universities would help further mobilise the commitment and resources of local, national and international efforts to help the redevelopment of the quake areas.

Si Yuan Professor in Health and Social Work Cecilia Chan said some initiatives were already on the drawing board. These include a Pre-school Programme for Children aged 3 to 6 – with an estimated 100,000 children, in this age group, left without nursery and kindergarten education. The initiative will provide special pre-school educational programmes, community child-activity centres and mobile child-service stations, student training in disaster management and community development and psychosocial intervention for severely injured individuals and orphans; this will also support healthcare professionals, teachers, grassroots cadres and disciplinary forces members, especially those who have been traumatized by rescue work in heavily affected areas.

Writing and the Cult of Celebrity

Booker Prize Winner, Anne Enright, delivered this year's Man Distinguished Lecture, hosted by the Hong Kong Literary Festival and the School of English at the Rayson Huang Theatre.

In an often amusing and delightful talk the author of *The Gathering* referred to the week she was short listed for the prize as "one of the happiest of my writing life."

"*The Gathering* had been published in the States and I felt that, for once, the right factors had come together; the book, the timing, the extra push from the prize. I felt lucky and justified in my luck, and I mourned a little the other books I had published," she said.

"But I felt the validation awarded me by being short listed for the Man Booker was enough. To win would be something else again, something not quite real because the winner becomes, for a few moments, or even a whole day, the winner becomes slightly unreal. They become a symbol, of their profession perhaps, of the whole huge and historical endeavour that is the novel.

"Despite the fact that this Man Booker business was no use to me as a writer it did cheer me up no end, and although I knew the dangers of being vaguely or fleetingly symbolic, I also knew that this was never going to happen to me."

However, as the rank outsider, she surprised not just herself by winning and the prize, which raised new problems for her as a writer.

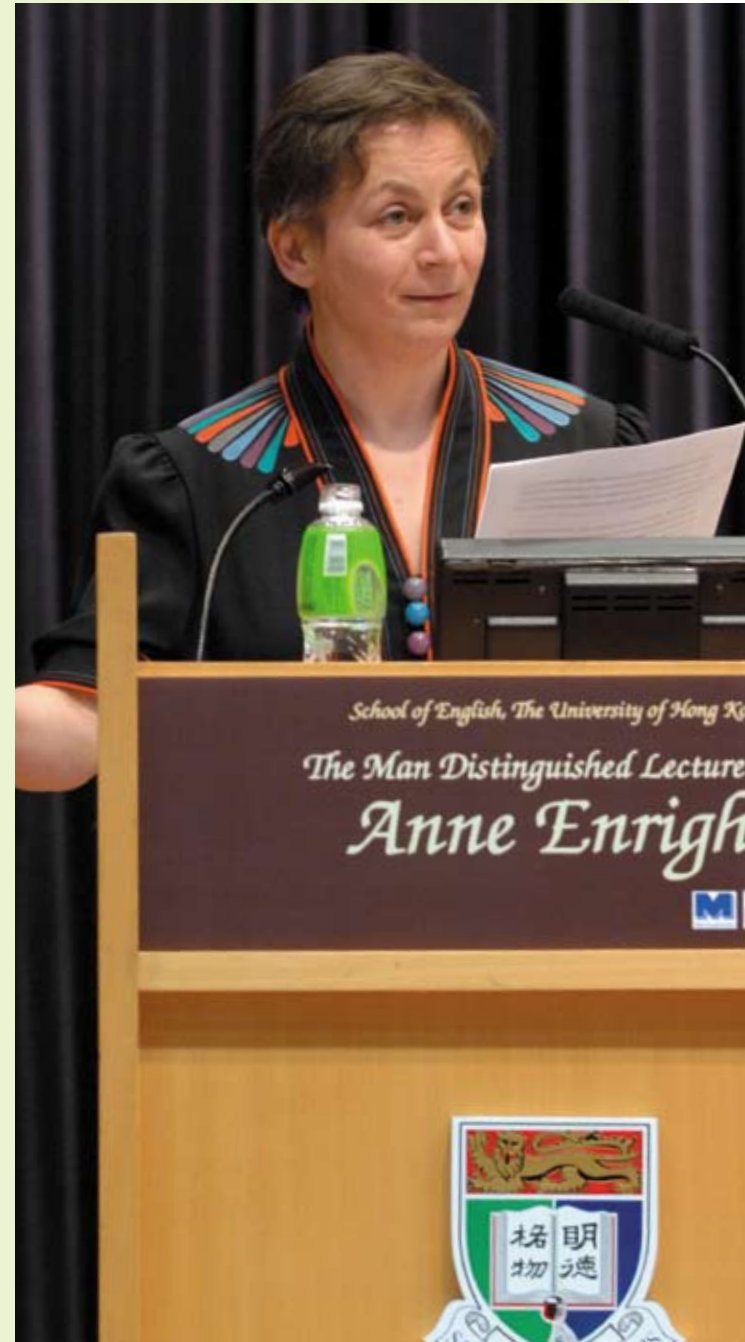
"Success and failure are the enemies of talent. Failure will kill a writer, but slowly. Success can do the job much quicker," she said, and she talked of her gathering aggression towards the media and the way her book was reduced, by journalists, to the word 'bleak.'

"I had the sense that being a writer is the opposite of being a celebrity; I was living a contradiction between the silence of the work and the babble of the media, and of our modern celebrity culture. My fear is that the cult of celebrity is about making things simple, what we like about writers is that they let things be as complex and as nuanced and ambiguous as they have to be, the cult of celebrity turns life into gossip, cartoons, melodrama, all of these narrative forms remove a sense of meaning from the story, whereas writing is all about finding meaning, sometimes in unexpected places.

"The magic of celebrity comes from the same infantile place as folklore does, but what the celebrity business resembles most is gossip, it's often hilarious and gleeful and full of spite, it has the need to elevate and to shame conspicuous individuals, if possible at the same time.

"The magic of books on the other hand still involves ideas of truth, the real, the necessary, sometimes even the spiritual, whether it's written in posh or popular prose. Above all celebrity-type gossip is a communal

thing – it's made of many minds, it's one of the methods by which the group keeps the individual in its place. Writing is not about staying in your place. Writing is about setting the individual free," she said.



Greening the Community

A new environmental centre will educate the public and promote research

The opening of the Lung Fu Shan Environmental Education Centre is a unique partnership between the University and the Environmental Protection Department (EPD) of the Government that provides both a community service and a venue for ecological research.

The centre, located on the leafy southern edge of the campus and within walking distance of a number of historic buildings, offers the public guided tours and workshops that focus on the area's local ecology and built heritage.

Its displays are based on input from University academics on such subjects as climate change, local herbs and plants, and the area's wild animals.

The centre was officially opened by the Secretary for the Environment, Edward Yau, and HKU's Vice-Chancellor and President, Professor Lap-Chee Tsui. "The new centre will help develop the public's sense of responsibility to protect natural habitats and combat environmental problems like climate change," Mr Yau said.

Funding for the centre is shared by the EPD, which is paying for the capital costs, and HKU, which has committed \$1 million per year for the next five years to the management of the centre.

The centre is housed in three historical buildings that were built between 1914 and 1919. There is also an eco-pond with a variety of freshwater fish and plants, a courtyard with abundant vegetation to attract birds and butterflies and solar panels to generate electricity.

Dr Winnie Law has helped to develop the project, which is managed under the new Kadoorie Institute (www.hku.hk/kadinst), where she is a Teaching Consultant. It is a work in progress, as programmes are in development to bring HKU students in as volunteers and collaborate with The Kadoorie Institute's Shek Kong office on a one-day educational tour to both sites, among other initiatives.

"We also want to use the location to do more first-hand research and share that with the public. We're now working on setting up camera-traps so we can take photos of animals in the wild for primary research," she said.

The centre is the latest community-based environmental initiative supported by HKU. The University supported the opening of the Lung Fu Shan hiking trail next to the campus in July 2007. It is also designing the new Centennial Campus to provide a direct link for the public from the urban Western district streets to Lung Fu Shan Country Park.

A Blueprint for Great Learning

The new four-year undergraduate curriculum for HKU is taking shape

It may seem a stretch to link the SARS virus to curriculum reform, but consider this: they both started out as ill-defined situations in which the challenge was not only to come up with the solution, but to identify the key questions that needed addressing.

It is a comparison that Professor Amy Tsui, the Pro-Vice-Chancellor for Teaching and Learning, likes to draw when she speaks of the goals for the new four-year undergraduate curriculum, which begins in 2012.

“SARS was a very heartbreaking episode for me and for a lot of people in the community,” she said, citing the fear that reverberated throughout the community when it was confronted with an ill-defined epidemic, and the finger-pointing that resulted when no immediate solutions were forthcoming, even as people put their lives at risk to tackle the problem.

“I have reflected on what happened and how we could learn from the experience, and I have come to the conclusion that we always think problems are well defined and our job is to solve them. At university, students are often told, here is a problem, go out and solve it. But in real life, problems do not usually present themselves as such; they often need to be identified and defined.

“The gap between the learning at university and the situations that students will encounter later on, such as in the workplace, is one of the reasons why employers often complain that university graduates do not seem to live up to their expectations.

“What we want students to be able to do is not just to solve problems that have been defined for them, but to address problems that have to be identified and located. We also want them to understand that new problems are created as existing ones are being solved, and that it is in the continual process of addressing them that the world moves forward.”

Tsui has been going through a similar process as she oversees the development of the new curriculum. All universities in Hong Kong will switch to four-year undergraduate degrees, up from three years today, and the challenge is how to make the best use of those four years of education.

“When you talk of novel situations and ill-defined problems, the territory-wide move from three to four years of undergraduate education, coupled with the shift from the seven to six years of secondary education, is exactly that. We’ve never tackled a transition on such a scale in the community before,” she said.

Tsui’s approach has been to hold numerous meetings with academic staff and students from all faculties, to draw on their expertise and understand better what they think is working well in the undergraduate curriculum at HKU, what needs fine-tuning, and what needs overhauling.

The results have contributed to the crafting of educational aims and a curriculum structure that will not only provide students with disciplinary knowledge and intellectual skills, but also inspire them to think more deeply about the world and to nurture the core values of a responsible global citizen.

The conception of the new curriculum is underpinned by the understanding that it should represent the totality of students’ learning experiences, in and outside the classroom, and on and off campus. An emphasis is placed on engaging students in experiential learning in which they are confronted with real-life issues.

The curriculum is being developed around six educational aims: critical intellectual inquiry, intercultural understanding and global citizenship, communication and collaboration, upholding of personal ethics and critical self-reflection, leadership and advocacy for the improvement of the human condition, as well as tackling novel situations and ill-defined problems.

An important component will be the “common core curriculum”, which consists of areas of inquiry that all students will be required to undertake beyond their major field of study. The areas are scientific and technological literacy, the humanities, China studies and global studies, and students will be required to take six common core courses (out of 40 courses needed to graduate).

Tsui said the common core would not simply provide introductory-type courses, but equip students with the skills to understand and interpret complex issues that they encounter in their daily lives. For example, they will need to be critically aware of global issues and trends, and come to their own interpretation of statistics as presented in the media and issues such as the social and ethical implications of scientific and technological innovations.

“It’s not just about broadening, but rather getting students to understand all the issues that we are confronted with in our every day lives and being able to see these from a number of perspectives, and being able to see the inter-connectedness of human experiences,” she said.

The University Senate has endorsed the educational aims and curriculum framework, including allocating 15 per cent of

the curriculum to the common core. It has also endorsed English as the *lingua franca* on campus, which means it would apply to all campus activities, including student-led ones.

“I believe students lie at the centre of the work of this University,” Tsui said. “A university is really there to nurture the younger generation. That is its core mission.

“In Chinese, the term university is translated as ‘great learning’. It is not ‘great teaching’. A university is where we want great learning to happen, for the students and the staff as well.”



Sustainable Behaviour Therapy

A new vision to green HKU's campus and its staff and students

Ann Kildahl, the new Sustainability Manager at HKU, likes to define her job by the impact she can have on people, as much as on the environment.

"This work is about new ways of thinking and behavioural change," she said. "The students at HKU are the future leaders and decision makers of this region, so our challenge is to help them understand and act in ways that will contribute to more sustainable ways of living over the course of their working lives."

With that in mind, she has moved quickly since arriving in February to set ambitious goals for the University and its 20,000 students and 5,700 staff.

Two issues are at the top of her priority list: energy efficiency and waste management. Although the University has made strides in both areas – for instance, electricity consumption has fallen seven per cent since 2002 – a lot more could be done by establishing new systems and infrastructure and fostering greener behaviour.

For the coming academic year, Kildahl is working with the Estates Office on a retrofitting programme that will improve the energy efficiency of the University's existing buildings, which number more than one hundred. She is also introducing a new waste management programme that reaches all academic and administrative buildings, student residence halls and senior staff accommodation, and encourages people to recycle as a matter of routine.

Education and awareness building will be central features in her efforts.

"I would like more people to understand how what we do, and the buildings where we live and work, affect resources like energy and water. Similarly, with recycling I want better awareness not just about where the cans and plastic bottles go, but the link between waste management and climate change."

Engaging students to help tackle the many items on her to-do list is an important part of her strategy. She reckons that

by contributing to sustainability efforts on campus, students can learn more about the issues and develop their communication and project management skills.

Tapping into the energies of others is, indeed, a necessity in a job whose remit extends into every corner of the University.

"This job is too big for one person; it needs to be done by teams," she said. "I spent my first few months meeting as many people as I could and discovered that there was already a lot happening on campus. We have a deep reservoir of knowledge and expertise at HKU. I see my job as co-ordinator, connecting the dots so people can be more aware of what others are doing and their efforts can be advanced on campus and beyond."

Kildahl sees a similar role for HKU within the region because its longstanding commitment to sustainability principles puts it in a strong position to provide leadership and guidance to other universities.

"The Centennial Campus is an opportunity for HKU to become a model of higher education sustainability in Asia. With greater awareness of climate change, countries around the region are improving and upgrading their building standards, and we can expect to see a growing recognition of sustainability issues among universities. HKU is well positioned to help advance this process – we need to see just how far we can push the envelope," she said.

She has already taken some steps to advance the University's leadership role. In her first few months, she proposed a consortium of Hong Kong universities to communicate and share experiences on sustainability issues. She also signed up the University to the International Sustainability Campus Network, a small forum of leading European, North American and Asian universities convened for the exchange of information, ideas, and best practices for sustainable campus operations. HKU will lead the development of the network's Asian chapter.

Kildahl points out that universities around the world are working towards similar goals relating to sustainability. "This is an exciting time to develop new collaborative networks. We're not in competition – these are global challenges, and we can all gain by working together," she said.

Getting to the Root of Reading Problems

New research shows dyslexic brains differ depending on the language they speak

The theory that dyslexia may be a different neurological condition in readers of different languages has gained new ground with the latest study from our Laboratory of Brain and Cognitive Sciences.

Researchers at the State Key Laboratory have shown, for the first time, that the brains of dyslexics differ depending on the language they speak.

Previous research had found that Chinese children who suffer reading difficulties use different parts of the brain to westerners. But now, a team, led by Assistant Professor in the School of Humanities, Dr Siok Wai-ting, has compared dyslexic Chinese children to their English-language counterparts and found that their brains are structurally different.

“Previous neuro-imaging studies have revealed that dyslexic readers of alphabetic languages have decreased grey matter volume in the posterior brain,” Siok explained.

But to assess whether these abnormalities are universal, or culture-dependent, she and her team decided to study dyslexic Chinese children.

“What we found is that in Chinese readers the posterior grey matter is unaffected, while the grey-matter volume in the left middle frontal gyrus region – which has been shown to play a part in Chinese reading and writing – is significantly smaller in dyslexic children than it is in normal subjects,” she said.

The research, published in the *Proceedings of the National Academy of Sciences*, could have major implications for teaching and learning. “This region of the brain is also important for working memory, and possibly for mathematics,” she added.

Dyslexia affects between seven and nine per cent of children in Hong Kong and up to 17 per cent globally.

“Our findings suggest that dyslexia in different cultures may cause different biological disorders, in fact they may be different disorders completely, so we should not use the same treatment methods for both.

“One implication suggests we should use different treatment methods for Chinese children. We cannot simply adopt western treatment methods for alphabetical reading.”

The subjects were all children – 16 normal and 16 dyslexic. Their brain functions were compared to each other and then compared to previously-published findings.

“A lot of earlier findings have suggested that the part of the brain affected in western children is responsible for letter sound conversion, it is also very close to the auditory cortex. For alphabetic readers, reading and listening are very closely related.

“However, the region for Chinese is close to the region for motor skills. We also found that for Chinese children reading and writing may be more closely related.

“Apart from the academic impact, there is also an emotional one to consider; dyslexic children may suffer low self-esteem, especially those with a high IQ which is common in dyslexic children. Reading skills are not related to IQ.”

The team will now concentrate on two areas of research. “One is the diagnostic aspect of dyslexia to see if we can find some early measurement of dyslexia and, secondly, we want to look at what kind of treatment methods can be provided for children.

“In Chinese children dyslexia is usually identified pretty late because of the nature of Chinese writing. It might not show up until the age of eight or nine. But alphabetic readers can be identified much earlier, possibly in pre-school. The sooner they are identified the better, so early identification is very important. The findings suggest that if we identify and treat a child early their chance of going on to read normally is much higher,” she said.

Siok also intends to explore the nature of Chinese reading and of Chinese dyslexia as a whole. “It’s a very important topic,” she said. “The problem is very difficult to overcome using the current method.

“And parents often think that dyslexic Chinese children are lazy, even though the child is intelligent. There is not much knowledge of dyslexia in Chinese society so there’s some misunderstanding about the problem, this can have a great impact on the child, emotionally, and on the child’s development academically.”

Hopefully, the new findings will go some way to enlightening parents about the nature of dyslexia and the importance of seeking early diagnosis and treatment.



Breathing New Life into an Ancient Art Form

One of China's oldest art forms, Cantonese Opera, is being introduced to a new generation of youngsters.

Cantonese opera may not be generally associated with schoolchildren, but a new project to encourage young people to appreciate the ancient art form has met with an enthusiastic response in several schools across Hong Kong.

Over the past two years hundreds of students have taken part in a pilot scheme to incorporate Cantonese opera into the formal curriculum. Initially, four secondary schools signed up for the project, but this year that has increased to seven, with plans to include another three schools in the coming academic year. The aim is to promote one of the world's oldest forms of Chinese opera to a new generation.

The brainchild of Dr Ng Fung Ping, Assistant Professor in the Faculty of Education, the 'Integrated Cantonese Opera in Education' project is taking advantage of the new senior secondary curriculum to integrate Cantonese Opera into Chinese Language classes.

Ng said: "We started in 2006 after a number of Cantonese opera stars alerted us to the fact that interest in Cantonese opera was waning. They said audience numbers were dwindling and there were very few new opera singers coming through. They urged us to do something in schools to prevent this art form from disappearing altogether."

"Sadly, Cantonese opera is no longer a profession that young people choose to join. We put this down to them being more interested in television and cinema than in going to the theatre, and so they are less aware of this part of their culture. Also Cantonese opera, from the point of view of the professional

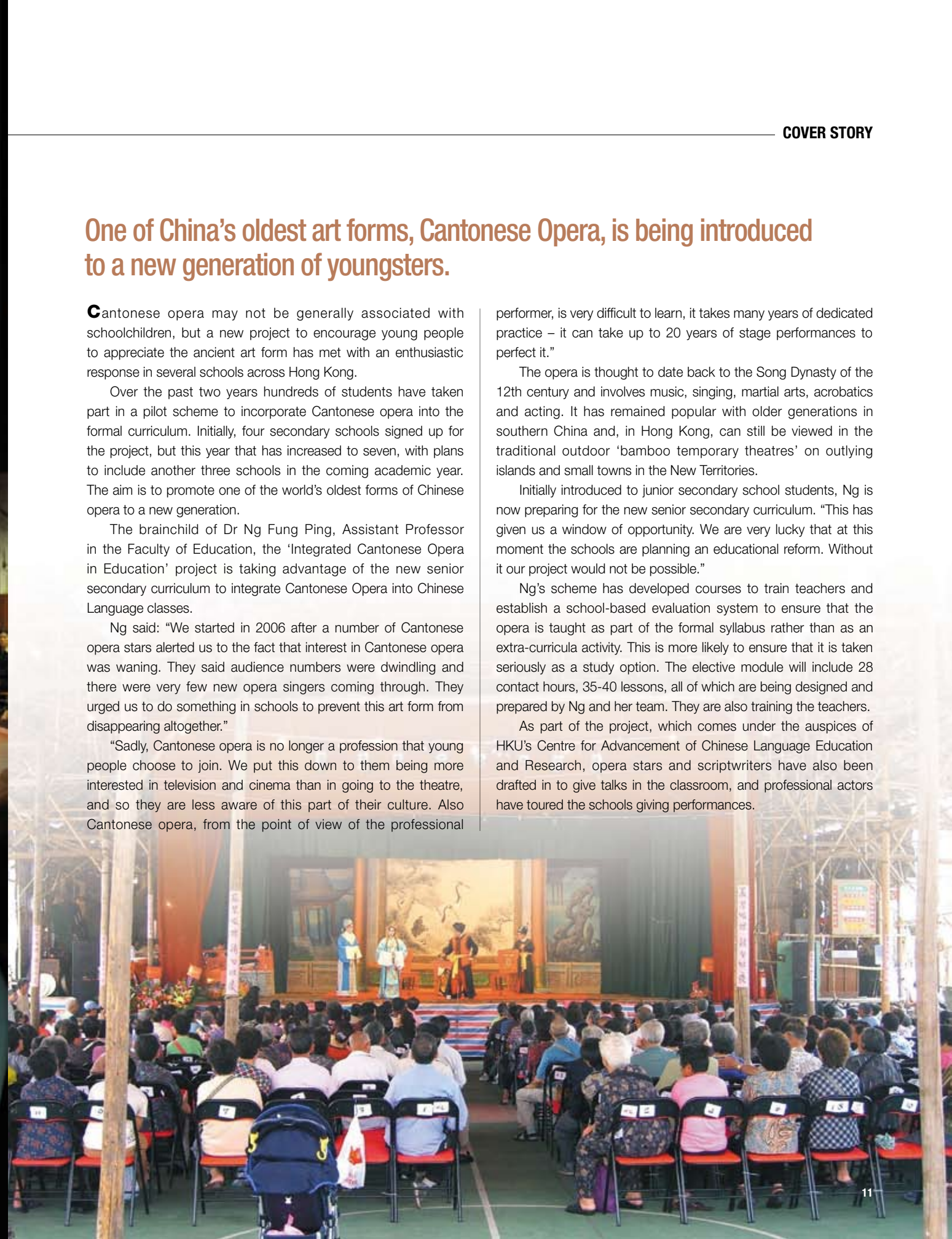
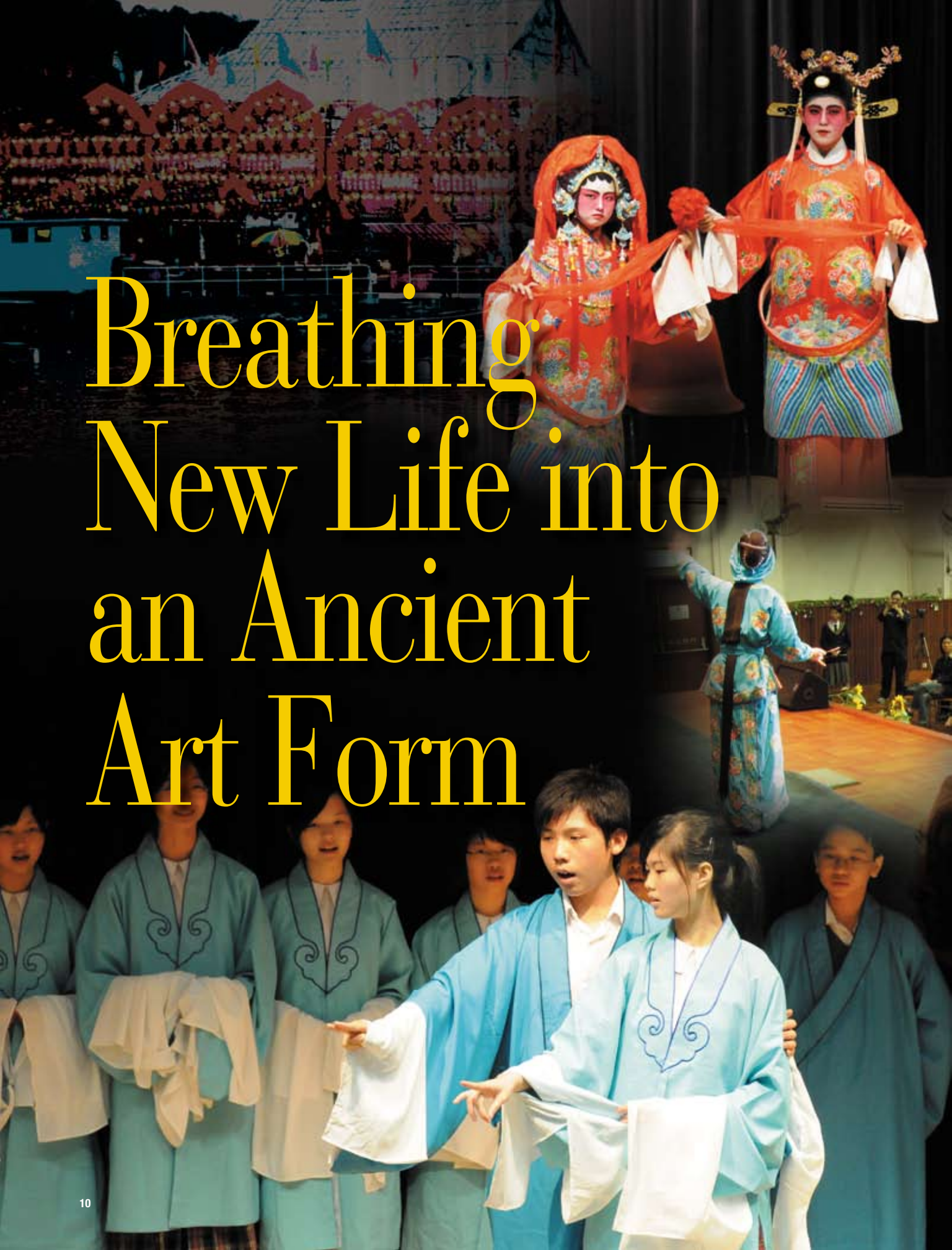
performer, is very difficult to learn, it takes many years of dedicated practice – it can take up to 20 years of stage performances to perfect it."

The opera is thought to date back to the Song Dynasty of the 12th century and involves music, singing, martial arts, acrobatics and acting. It has remained popular with older generations in southern China and, in Hong Kong, can still be viewed in the traditional outdoor 'bamboo temporary theatres' on outlying islands and small towns in the New Territories.

Initially introduced to junior secondary school students, Ng is now preparing for the new senior secondary curriculum. "This has given us a window of opportunity. We are very lucky that at this moment the schools are planning an educational reform. Without it our project would not be possible."

Ng's scheme has developed courses to train teachers and establish a school-based evaluation system to ensure that the opera is taught as part of the formal syllabus rather than as an extra-curricula activity. This is more likely to ensure that it is taken seriously as a study option. The elective module will include 28 contact hours, 35-40 lessons, all of which are being designed and prepared by Ng and her team. They are also training the teachers.

As part of the project, which comes under the auspices of HKU's Centre for Advancement of Chinese Language Education and Research, opera stars and scriptwriters have also been drafted in to give talks in the classroom, and professional actors have toured the schools giving performances.



Students have also had the opportunity to attend opera performances, and have been invited back stage to watch the performers prepare. The response from schools has been very encouraging with students keen, not only to study the scripts, but to take to the stage themselves.

"Traditionally, Cantonese opera was only taught in occasional music lessons," explained Ng. "Most artists that we see today came to opera through extra-curricula activities or through the Academy of Performing Arts programmes. Our challenge has been to integrate Cantonese opera into the formal school curriculum. There is more to Cantonese opera than just the music, it has a strong basis in traditional Chinese literature, the Cantonese dialect and dance.

"The feedback has been beyond our expectations. Students at some schools have even been composing their own poetry, inspired by the ancient scripts. They have also been learning how to perform, master the movements, the formulae for expressing themselves and how to sing and apply the make-up.

"They have also learned how to move while wearing the costumes. This is very important as these costumes are very, very heavy. The students have now come to appreciate the skills and strength required for acting and conducting martial arts while weighed down by such heavy costumes," said Ng.

Funding for the project has come from various private donations, including the Yam Pak Charitable Foundation and the Cantonese Opera Development Fund. It was these charities that inspired Ng and her team to launch the project.

"Many of the plots are based on Chinese historical events and Chinese classic literature and mythology, and apart from increasing students' interest in opera, the scripts are also used to improve their writing skills. So, putting Cantonese opera into Chinese language education is very natural," she said.

While delighted with the initial response the project has not been without its challenges for Ng and her team. "It has

demanding a lot of resources," she said. "It's not just a matter of sitting in a classroom with paper and pen, we have had to get a lot of performing artists involved. We have to work very closely with these people.

"We also have to work closely with the Home Affairs Bureau which has provided subsidies and grants and also work together with the teachers and the schools."

But, despite the intense competition that opera faces from different media today Ng is passionate about preserving this part



Dr Ng Fung Ping

of the Cantonese heritage. "A common problem in Hong Kong, at the moment, is a lack of educational emphasis on the arts in general, whether it's drama, music or any of the performing arts," she said. "There is very little funding for this, and for Cantonese opera in particular. We are worried that unless we do something this ancient art will die."

But with Ng's infectious enthusiasm and determination to make a difference there seems very little chance of that happening just yet.

Engineering Safer Buildings in Earthquake Zones

HKU researcher sets his sights on helping engineers build safer buildings in earthquake prone areas

An advanced testing device, installed by researchers at HKU, may help engineers construct safer buildings in liquefaction-prone zones.

The Automated Cyclic Triaxial Testing System measures the resistance of soil to liquefaction. Liquefaction is a common problem during earthquakes and can lead to catastrophic damage.

Dr Jun Yang, Assistant Professor in the Department of Civil Engineering, has been studying soil behaviour during earthquakes for ten years. He said: "We have been looking at how the ground responds during an earthquake and how that ground response influences the response of the structure upon it, and the potential damage to those structures.

"So in our work it is the soil/structure interaction system, during an earthquake, that we are interested in."

Earthquakes remain one of the world's major problems, occurring frequently and resulting in high death tolls and crippling economic losses.

The recent Wenchuan earthquake alone, resulted in more than 69,000 deaths and up to 15 million displaced people. The economic cost is expected to be in the region of US\$20 billion.

During the 20th century several massive earthquakes in China, Italy and Japan each resulted in more than 100,000 deaths.

Although sand liquefaction was not a major factor in the recent Sichuan earthquake it played a major role in the devastation caused by the 1995 Kobe earthquake.

Yang's testing device can be used to investigate the different factors that may influence liquefaction potential.

He explained: "We have rock, then soil, then the structure on top. Different soils respond in different ways to tremors or earthquakes. For example, clay and gravel respond differently to sand, so it depends on the nature of the soil, it also depends on the type of earthquake loading. The response is very complicated which is why we are doing this research.

"We have to take into account a lot of factors. We do this by numerical computer simulation, we simulate how the ground responds during an earthquake. What we have found is that our prediction tool is reasonably good.

"In terms of sand, it is naturally saturated by ground water and, during an earthquake, when the pore water pressure rises to



about the pressure of the weight of the overlying soils, it liquefies. If you have liquefaction the structures suffer a lot of damage because the soil loses its support capabilities. This, in particular, happened in the Kobe earthquake where, in many places, the water and sand rushed to the surface as slurry," he said.

But liquefaction is a complicated phenomenon as not all sand is equal, it seems. "We also have to consider the liquefaction potential of a particular type of sand. There are many different types of sand – some particles are round or angular, and also there is a size difference – all this has an impact on the liquefaction potential.

"The density of the sand is also very important, and we have to consider the stress level and the particle size and the cyclical loading nature, whether it's high or low frequency," he said.

Normally, liquefaction will take place in relatively loose sand, and the stress states of the particular location also play a role. Using Japanese and Chinese standard sand Yang and his team are able to conduct experiments using the Automated Cyclic Triaxial Testing System, analyse the results and then develop theories. Unsurprisingly, his work demands an in-depth knowledge of both earthquake and geotechnical engineering.

Now he is hoping to apply that knowledge to developing a relatively simplified programme that will help engineers analyse the complicated site response effects of ground motion on buildings.

"At the moment we have several very complicated programmes to do this, but professional engineers are reluctant to use them because they are too complicated, have too many premises. Our purpose is to develop a practical procedure to analyse soil structure systems. On the other hand this procedure should not only be practical, or simple, but should also be able to help engineers, or help us to account for important effects and expand our understanding of the mechanism. Our programme will allow engineers to do the analysis in a convenient way," he said.

Yang believes his research, financed by the Research Grants Council, will lead to safer and more economical designs to cope with the recurring hazards of earthquakes.

Pregnancy Blues Linked to Abuse

New survey shows that psychological abuse can lead to post-natal depression

A survey, conducted in seven obstetrics and gynaecology units across Hong Kong, reveals that pregnant women, who are abused by their partners, are more likely to report post-natal depressive symptoms. They are also more likely to suffer poorer mental health than non-abused women.

The study, published in the *British Journal of Obstetrics & Gynaecology*, questioned 3,245 women between 32 and 36 weeks of pregnancy. The results showed that 9.1 per cent of them said they were abused by their partners. Of those, 76 per cent claimed the abuse was psychological. Only 27 per cent reported physical and/or sexual abuse – and of these 57.5 per cent said they were also victims of psychological abuse.

Assistant Dean of the Medical Faculty and Associate Professor of the Department of Nursing Studies, Agnes Tiwari led the survey. She said: “After ten years of working on this complex problem, we are now reaching a new level of understanding.

“When we started, it was difficult because intimate partner abuse in Hong Kong appeared to be very different to that reported in the literature, especially amongst pregnant women. It seemed that the men didn’t beat them here, but they abused them in a worse way – the abuse was psychological. It was very difficult to recognize psychological abuse since there was no consensus. How would one define psychological abuse? For physical abuse it was very obvious.”

The need to come up with a robust definition of psychological abuse for the purpose of research and clinical practice has prompted Tiwari and her team to go back to their informants: the women who identify themselves as victims of psychological abuse. Interestingly, while there may be disagreements among scholars as to what constitutes psychological abuse, these women have no difficulty identifying what it is and there is a high degree of agreement among them. The most commonly cited examples of psychological abuse are shaming in front of friends or family, put-downs regarding appearance or behaviour, and ridiculing.

Listening to the voices of abused victims has helped Tiwari and her team to develop the Chinese Abuse Assessment Screen, which allows the detection of psychological as well as other forms of abuse in Chinese women.

“There is a common misconception that psychological abuse is not as harmful as physical or sexual abuse. But the women in our studies said otherwise”.

Pregnancy is Tiwari’s window of opportunity for reaching these women. “Not only does pregnancy bring them into contact with healthcare professionals, the trusting relationship may make them feel safe enough to disclose their abuse.”

In 2002-03 Tiwari’s team offered a short but effective intervention to abused pregnant women to help them protect themselves as well as to reduce the adverse effects of abuse on their health and well-being.

“We found the most useful part was listening,” she said. “Often women will say ‘you won’t believe it, even my mother doesn’t believe me’. When our nurse assured these women that their stories were taken seriously, it was a relief for them because for the first time they had not been ignored or ridiculed for revealing the abuse. Our intervention may not be the magic pill but we are giving the women something they’ve been looking for. Knowing they are not alone helps.”

Now Tiwari is concentrating on primary prevention by working with expectant mums and dads. “We don’t assume that they have any problems but, basically, we think that if we support them, it helps. We know that pregnancy is a stressful time for the women but we think it is also stressful for the men. But help for these men may not be as readily available.

“We are going to find out what these expectant dads need. Primary prevention is a positive place to start from because once the abuse has started, it’s hard to go back.”

Tiwari and her team will also hold a Child Friendly Parenting programme, in which parents will be asked to refrain from corporal punishment, reduce their criticism of, and shouting at, the child and also increase the number of times they praise their children.

“Now that may be hard for some Chinese parents,” she said. “Because they believe that if you praise your children, they will get spoiled. I think they have to find a balance.

“This is a very exciting time for us because we can work with expectant parents, and we can also work with parents in the community. With a bit of help, hopefully, home will be a happier place for these parents and children.”



DNA Forensics and the Law

How science fights crime

For most of the last century fingerprinting was considered one of the most accurate ways to place a suspect at the scene of a crime. The revolutionary technique succeeded in putting many criminals behind bars.

Today, however, a more accurate, and equally revolutionary, method is frequently used: DNA evidence – often considered the silver bullet in the trial lawyer’s armoury.

The process is simple: two samples are taken, one from the suspect and one from the scene of the crime. The samples may be skin tissue, hair, blood, semen or vaginal

fluid. Then, the DNA of both samples is extracted, studied, and compared. If the DNA matches, then the suspect can be placed at the crime scene.

Since the late 1980’s, DNA results have been widely used as evidence in the courtroom - perhaps most sensationally during the 1995 O.J. Simpson trial.

At HKU, Personal Professor in the Department of Statistics and Actuarial Science, Dr Tony Fung Wing Kam has spent much of the last decade developing methodologies to help government forensic scientists interpret DNA samples.

Recent winner of the prestigious Croucher Senior Research Fellowship award, Fung said that statistical methodology plays a key role in ensuring that DNA evidence is analysed, interpreted and presented correctly. And with the recent advances in computer technology, this methodology is more complex than ever before.

He came to the area of research quite by accident. “In 1993,” he said, “the department head, at the time, asked me to teach a course on Statistical Applications and one application was in law, but I had no idea how to teach it, because I was not doing law.

“We discovered that DNA profiling is one statistical aspect of law, so to find out more I went to a conference in Arizona. Although I participated, I had little idea of what they were arguing about. I had no idea, at the time, exactly what DNA profiling was, so I asked a number of simple and naïve questions.

“After I came back I contacted the Hong Kong Government Laboratory because they were also working on this area from a forensic, or legal, point of view. They were also very aware of the chemical or biological side of DNA profiling. I consulted them frequently and began to learn more about this area and to work on some simple problems,” he said.

At the time, in 1994, a newborn baby was stolen from the Caritas Hospital. A few days later a newborn was found abandoned in Yau Ma Tei. “But we couldn’t identify the baby,” said Fung. “All newborns look similar, and also all Chinese babies have black hair, so there was no way of proving its identity.

“So the government’s scientists needed to do the DNA test and asked me if I could do the calculations.”

The situation he said was somewhat different to regular paternity tests, which usually involve the mother seeking to prove the baby’s paternity. “But here we needed to confirm that the couple were both parents to this baby. The government did not know how to do the calculation, so I provided the formula and then did the statistical assessment.”

From there grew his fascination with both the practical and theoretical aspects of DNA profiling. Since then his work has been published in several journals and he and his PhD graduate have recently published a book, *Statistical DNA Forensics: Theory, Methods and Computation*.

It explains much of the recent developments in statistical methodology for DNA analysis.

In recent years he has concentrated on the complex problem of DNA mixture.

And he explained: “If you find a blood stain on the carpet at a crime scene, we might assume that it was left by the perpetrator, and not the victim. If we compare the DNA of the suspect with the blood sample and they match then that’s simple. But by law, we have to provide figures, which means devising a theory, or method and then a computer programme to do the calculations.

“However, this sort of case deals with single person DNA and is therefore relatively straight-forward. Mixture, in contrast, involves the DNA of more than one person. This makes it more difficult to analyse because you can’t separate the blood. For example, during the OJ Simpson case, in which two people were murdered, blood stains were found from two people, but it was impossible to separate them. This mixed DNA also occurs in multiple rape cases where there may be a mix of several different DNA’s.

“You have to look at several chromosome loci to narrow down the likelihood of the DNA belonging to one particular person. You can imagine how difficult this is to do when two, or more, people are involved.”

The difficulty increases when the samples are from individuals of a different racial background.

“In the OJ Simpson case there was a blood mixture, but at that time no method had been developed to distinguish between them so they could only assume that both samples were from men of the same race. So you can say that the figures they provided at the time were probably wrong.”

That spurred on Fung to develop his own statistical method, or formula, to assess different possibilities.

“After all the fuss of the OJ Simpson trial I recognized there was a need for a new method,” he said.

He is now working on developing a theory for calculating DNA mixture from the government’s offender’s database. “This is my main area of research,” he said, “and I will also be collaborating with the Hong Kong Government Laboratory by providing them with scientific figures, methods and computer programmes to do the analysis.”

Fighting Cancer Naturally

New study reveals the power of fruit to combat certain cancers

A diet rich in fruit and vegetables has long been thought to ward off sickness. Now a link between fruit and cancer prevention has been firmly established by the discovery that an antioxidant found in figs, mangoes, strawberries and grapes appears to be effective in fighting cancer of the head and neck.

According to scientists in the Departments of Surgery and Chemistry the compound, lupeol, is three times more effective than the chemotherapy drug, cisplatin, in curbing the spread of cancer cells in the nasopharynx, nose and mouth. Even more surprising is that, when used in conjunction with chemotherapy, it increases the drug's potency 40-fold.

The findings, published in the journal *Cancer Research*, reveal that lupeol can significantly suppress the activation of a protein which promotes the growth of cancer cells.

Honorary Professor in the Department of Surgery, Anthony Yuen Po Wing said: "This is very encouraging news because lupeol, as a natural antioxidant, has very few side effects and it is much cheaper than conventional treatments."

In a mouse model lupeol was found to have minimal effect on surrounding tissue and on vital organs like the liver and kidneys.

Head and neck cancer is the third most common in Hong Kong with 2,087 new cases diagnosed in 2004 alone, and 665 deaths. Worldwide an estimated 500,000 people are diagnosed with the cancer every year.

Current treatments of advanced head and neck cancers have their drawbacks, often entailing disfiguring and risky surgery, chemotherapy and radiation and the disease continues to have one of the lowest five-year survival rates.

"In view of this," said Yuen, "there is an urgent need to establish alternative, more optimal regimes bearing minimal side effects. In recent years dietary substances like those obtained from fruit and vegetables have gained considerable attention for preventing or treating many cancers.

"The potential role of dietary substances in treating head and neck cancers is supported by evidence of lower incidences in the United States where the intake of fresh fruit and vegetables is much higher than here in Hong Kong," he added.

Despite a substantial increase in public awareness of the importance of a well-balanced diet, Yuen said people's knowledge of the benefits of specific foods for cancer prevention was lacking.

"Our findings will not only provide a novel therapeutic recipe and renewed hope for head and neck cancer sufferers, it will also show the public that only a slight change in diet can have a dramatic effect on health and cancer prevention."

The team will now go on to further develop lupeol into a clinically applicable anti-cancer drug.

Haunted by the Past

Locating the ghost in Hong Kong films

Vengeful ghosts bent on terror and destruction have long been a feature of Hong Kong cinema. But a mournful ghostliness can also be found in films outside the horror genre that offer insights into how people relate to their city and their past.

Dr Esther Cheung Mee Kwan, Associate Professor in the School of Humanities, has been studying how directors use dark corners, half-seen characters, old buildings and neighbourhoods, intrusions by outsiders, shifts between past and present and other devices to reflect the tensions of Hong Kong's relationship with its past.

"Ghostliness here refers to the state of being haunted by loss of the past and how it comes back to re-visit the people who are living," she said.

"I've been looking at how this is represented in the cinematic depiction of space. For example, in some films I've noticed a sense of holding on to spaces that may be disappearing or have disappeared."

She most recently applied her theories to three films made when Hong Kong was undergoing critical changes.

Ann Hui's *The Secret* was made in 1979, while Stanley Kwan's *Rouge* and Fruit Chan's *Little Cheung* were produced in the late 1990s. During that time span, Hong Kong was transformed from a sleepy British colony whose chief business was manufacturing, to a thriving, hi-tech postcolonial city.

"The cultural imaginary, common symbols and values of Hong Kong shifted as much as the socio-economic developments of the city. Hong Kong films are valuable resources for understanding these shifts," Cheung said.

The Secret tells the story of a woman who is given up as a ghost but is in fact alive. It depicts the dark streets and corners of old Western District, as well as the clash between old superstitions and the rationalist approach of young people that was coming to the forefront at the time.

Rouge, released in 1997, actually features a ghost but it is a nostalgic film that romanticises the past, a theme easily understood by an audience that was facing the uncertainties of the handover to Chinese sovereignty. *Little Cheung*, released in 1999, focuses on the lower classes, who are living disjointed lives in old tenement houses and neighbourhoods that have not enjoyed the fruits of Hong Kong's success.

"Fruit Chan, in particular, moves me with his passion for bringing back disappearing spaces on screen. A lot of places are being eliminated and Hong Kong has become a place with no history basically because of this sort of thing," Cheung said.

"There are two things we can do about it – people like activists are trying to preserve some of these spaces and they talk of reinventing Hong Kong space. The other thing is to go to literary and cinematic texts, painting and photography as well, to see how the ghostly city exists in these texts."

Cheung has also applied the 'ghostly city' analysis to Fruit Chan's *Made in Hong Kong*, which, as with *Little Cheung*, was particularly revealing about inequalities in the city.

"The people inhabiting older or forgotten spaces in Mong Kok or Sham Shui Po are older people and Filipino maids and new immigrants. They are inhabiting places that more privileged Hong Kong people want to forget.

So ghostliness is also tied to the question of class division in Hong Kong," she said.

One thing ghostliness is not about, though, at least for Cheung, is ghosts. She has deliberately avoided using her 'ghostly city' analogy to analyse horror movies.

"I often apologise to my students and colleagues because I simply cannot stand authentic ghost films. Some of them are so scary," she said.



Picasso Exhibit Hailed a Great Success

One of the most remarkable sets of prints created by Spanish painter Pablo Picasso has been on display at the University's Museum and Art Gallery.

The Vollard Suite – a collection of one hundred prints named after the art dealer Ambroise Vollard who commissioned them – went on display in May. The collection, completed in 1937, is grouped into five categories: The Sculptor's Studio, The Battle of Love, Rembrandt, The Minotaur and The Blind Minotaur show Picasso at his most playful. In addition there are 27 prints on disparate themes, including three portraits of the art dealer himself.



Using the techniques of etching, drypoint and aquaprint, Picasso explores classical and neo-classical subjects with archetypes from Greek mythology, such as the Minotaur and Pygmalion, reinterpreted to reveal Picasso's thoughts on the relationship between artist and model.

In The Sculptor's Studio series, he depicts himself as a sculptor, painter and lover, often representing himself as a mythological figure, frequently with his nude model lying in his arms.

In The Battle of Love, the artist is represented as a Minotaur driven by desire for his model.

Many of the prints also reveal Picasso's concern for the fate of the Spanish nation during the Civil War of 1936. Various prints depict a bull, the symbol of war and brutality, attacking a horse – a metaphor for innocent victims. They appear as a precursor to Picasso's iconic, anti-war, painting *Guernica*.

The prints, presented to Vollard in 1937, were placed in storage when the art dealer died in a road accident two years later. In 1948, the Parisian art dealer, Henri Petiet bought them and sold them separately. It was not until 1956, when the Swiss book dealer, Hans Bolliger, published them in book form that scholars began to consider the prints as an integrated set.

The Museum's Assistant Curator, Ms Annie Chow, said: "Picasso needs little introduction. However, in Hong Kong we rarely have the opportunity to see the work of this prolific and important twentieth century artist first hand. This exhibition showed the complete Vollard Suite showcasing a broad range of the artist's talents: drawing, composition, sculpture and of course, printmaking. Created at a significant period in Picasso's life, when he was reflecting upon the role of the artist, and his relationship to his art and his muse, these prints are some of his greatest printmaking achievements.

"The museum was honoured to be able to present this exhibition as part of Le French May for the benefit of the Hong Kong public and the University population. The exhibition attracted over seven thousand visitors from different walks of life, especially students, teachers, print makers, and tourists. We received many positive comments about the exhibition from members of the public, and special requests for guided tours from Warwick University Graduates' Association in Hong Kong, students from the Hong Kong Design Institute, as well as the architects of the Main Building and the Fung Ping Shan Building, Leigh & Orange."

The Chronicle of a Killer Plague

The Museum and Art Gallery's recent exhibition *From the Plague to New Emerging Diseases* celebrated the 120th anniversary of the Institut Pasteur through the life and work of the remarkable Pasteurian scientist, Alexandre Yersin.

Yersin, a Swiss-born medical scientist, dedicated his life to fighting infectious diseases in Asia and is credited with discovering the true cause of the bubonic plague.

At the end of the 19th century bubonic plague was one of the world's most feared diseases. An outbreak regularly resulted in a devastating loss of life. Although overcrowding and poor sanitation were recognized associations, the true cause of the plague was still unknown.

An outbreak in southern China in the early 1890s led to more than 100,000 deaths in Canton and, due to the region's importance on the trade routes, a worldwide epidemic was feared. When the plague reached Hong Kong, in 1894, Yersin, then working in French Indochine (Vietnam), was sent to the colony by

the French Government to investigate.

He was not alone. Governments across the globe saw the outbreak as an opportunity to study the plague and identify its cause. So, numerous scientists arrived onshore. Amongst them was one of the most celebrated scientists of the day, Shibasaburo Kitasato who, in 1887, had isolated the bacillus of tetanus and subsequently developed a vaccine.

The Hong Kong plague's epicentre was in the overcrowded Chinese quarter of Tai Ping Shan, modern-day Western, and Yersin had his laboratory built adjacent to the Alice Memorial Hospital, in Kennedy Town. It was here that he identified the bacillus that now bears his name: *Yersinia Pestis*.

The exhibition emphasised the importance of global collaboration in the identification and prevention of deadly epidemics such as dengue fever, avian influenza and SARS.

The Institut Pasteur continues to maintain its international network which includes the HKU-Pasteur Research Centre.



A model of Yersin's makeshift laboratory in Kennedy Town