



香港大學

THE UNIVERSITY OF HONG KONG

BULLETIN

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THE ART OF READING THE BRAIN

Our research
on thinking,
feeling and
communicating



Historic Footprints

Pillboxes tell
WWII stories



Climatic Power Rules the World

Is climate change
the chief cause of
human crises?





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A New Era Begins Arts Bids Farewell to the Main Building

As one of the three founding faculties of HKU, the Faculty of Arts, which commemorates its 100th anniversary in 2012, has called the Main Building home for nearly a century. Later this year, the Faculty will be moving to a new home, in fact, a new building of its own, on the Centennial Campus. So on April 22, an Arts Farewell to the Main Building event was held in Loke Yew Hall and many staff, students and alumni from the Faculty showed up to reminisce about the good times they had there.

The Faculty has nurtured a great deal of talent over the past century, which explains why there were so many eminent guests at the event. The former Chief Secretary for Administration Anson Chan led the way with her opening remarks for the ceremony, followed by poetry readings by Agnes Lam and Leung Ping-kwan, the presentation of the student Video Competition Prize by University Artists Mabel Cheung and Alex Law, a performance of Haydn's Farewell Symphony by the Hong Kong Chamber Orchestra, and finally a 'percussion parade' around the Main Building led by University Artist Lung Heung-wing. A wide range of activities also took place throughout the Main Building, including a calligraphy demonstration by Professor C.Y. Sin, cultural performances, and a creative writing café, just to name a few.



Accompanied by many distinguished alumni, Vice-Chancellor Professor Lap-Chee Tsui kicked off a 'percussion parade' around the Main Building.

Professor Kam Louie, the Dean of Arts, told those attending: "We are excited about these changes, which we believe will further enhance the student learning experience and allow us to maintain our position as one of the finest humanities faculties in the region and internationally. However, we didn't want to leave our 100-year-old home without a proper goodbye. Of course, the Main Building will remain a symbol not just of the Faculty, but of the University as a whole, for all to enjoy."

The new Centennial Campus building will house all existing Arts departments and will also boast many new specialist facilities – such as special storage for historical and multimedia materials, and innovative venues for performances and exhibitions – which will all contribute to creating an excellent learning environment for our students. ■



The Honourable Mrs Anson Chan delightedly recalled her memories in Loke Yew Hall.



Performance of Haydn's Farewell Symphony (Movements 1 and 4) by the Hong Kong Chamber Orchestra



A calligraphy demonstration by Professor C.Y. Sin

HKU Academics Sweep 2012 Croucher Senior Research Fellowships

In recognition of their research endeavours, remarkable scientific achievements and significant contributions to the international scientific community, three distinguished HKU academics were awarded prestigious Senior Research Fellowships by the Croucher Foundation. The awards were presented by Mr Kenneth Chen JP, Under Secretary for Education of the HKSAR Government, on March 29, 2012.

The Croucher Senior Research Fellowships are awarded to local academics who have excelled in scientific research work, as judged by leading international scientists invited to provide confidential reviews of

candidates nominated in a competitive exercise.

The 2012–13 Fellows are Dr Lu Liwei of the Department of Pathology in the Li Ka Shing Faculty of Medicine, Dr Alice S.T. Wong of the School of Biological Sciences in the Faculty of Science and Professor Ed X. Wu of the Department of Electrical and Electronic Engineering in the Faculty of Engineering.

Each fellowship includes not only a personal grant of \$60,000 to the recipient for research expenses, but also funding that will enable the university of the recipient to recruit replacement teachers to take over



From left: Dr Lu Liwei, Department of Pathology, Dr Alice S.T. Wong, School of Biological Sciences and Professor Ed X. Wu, Department of Electrical and Electronic Engineering

the award winner's duties for the period of the fellowship. This enables the awardees to devote more time and effort to research work. ■

Our Legacy of Excellence Grows The Sixth Inauguration of Endowed Professorships

Endowed Professorships are established to support the academic pursuits of distinguished professors. They are the most significant awards bestowed upon academics at HKU and are a reminder of the importance of the ongoing partnership between academia and those who support our endeavours. On April 20, 2012, HKU was pleased to celebrate its Sixth Inauguration of Endowed Professorships.

At the ceremony, the announcement of the Joseph Needham – Philip Mao Professorship in Chinese History, Science and Civilization took the spotlight. This professorship was established in honour of the late Dr Joseph Needham, who directed the monumental work 'Science and Civilization in China', and the late Dr Philip Wen Chee Mao, the Founding Chairman of the East Asian History of Science Foundation (Hong Kong).

The establishment of the Y W Kan Professorship in Natural Sciences was also announced at the Inauguration. Created by the Croucher Foundation, this Professorship is named after Professor Y W Kan, in recognition of his many contributions to the work of the Foundation and to the discipline of science in Hong Kong for over two decades.

At the ceremony, Vice-Chancellor Professor Lap-Chee Tsui noted proudly: "Since the first inauguration in 2005, we now have 66 Endowed Professorships at the University. We aim to create 100 Endowed Professorships and I am grateful to the community for its support of the University's goal." ■

For more about HKU's Endowed Professorships, please go to <http://www.hku.hk/ephku/>.



Newest Fellow of the NAS Professor Vivian Yam



Professor Vivian Yam Wing-wah, Philip Wong Wilson Wong Professor in Chemistry and Energy, Department of Chemistry, has been elected as a Member (Foreign Associate) of the US National Academy of Sciences, in recognition of her distinguished and continuing achievements in original research, particularly on light-emitting materials and innovative ways of capturing solar energy.

An elected membership to the Academy is regarded as one of the highest honours for a scientist. Professor Yam felt proud and privileged to have been chosen: "The most gratifying thing is that when a purely homegrown HKU graduate receives such recognition and acclaim, I can in turn reassure my students and their parents that Hong Kong is able to groom

scientists of world-class standing who are recognised internationally."

Vice-Chancellor Professor Lap-Chee Tsui was delighted with the news: "We are thrilled that Professor Yam's work has been recognised with this rare honour. Her pioneering research has helped put HKU on the academic map nationally and internationally, and her outstanding teaching will be a big draw for talented graduate students and junior faculty."

The National Academy of Sciences announced the election of 84 new members and 21 foreign associates from 14 countries on May 1, 2012, bringing the total number of active members to 2,152 and the total number of foreign associates to 430, of whom around 200 are Nobel laureates. ■

Professor Tony Fung Elected Fellow of the AAAS

Professor Tony Fung Wing-kam, Chair Professor of the Department of Statistics and Actuarial Science, has been named a Fellow of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society founded in 1848.

Professor Fung's research interests cover statistical diagnostics, robustness, longitudinal data analysis, DNA profiling, forensic statistics and genetic epidemiology. He is a fellow of the American Statistical Association and the Institute of Mathematical Statistics, and was also awarded the prestigious Croucher Senior Research Fellowship in 2008. Professor Fung

was elected by the AAAS Council through the strength of his remarkable contributions to statistical DNA forensics, robust statistics, professional services, and dissemination of statistical knowledge.

In recognition of their contributions to scientific advancement, a total of 539 AAAS members were elected as Fellows in 2011 and the awards were presented at the AAAS Fellows Forum held in Canada in February 2012. ■



City Planning Forum – Do Taipei's Challenges Hold Lessons for Hong Kong?



Staff of the Department of Urban Planning and Design, panelists and guests were delighted to have Professor John Lin Chien-yuan (third from the right in the front row), former Deputy Mayor of Taipei and Professor of the Graduate Institute of Building and Planning in National Taiwan University, in the City Planning Forum, giving a public lecture on 'Taipei Challenge: New Planning Initiatives'.

To mark the centenary of the University of Hong Kong, a 'City Planning Forum – Taipei Challenge: New Planning Initiatives' was held by the Centre of Urban Studies and Urban Planning as one of the celebratory activities in January 2012.

Professor John Lin Chien-yuan, former Deputy Mayor of Taipei and Professor of the Graduate Institute of Building and Planning, National Taiwan University, was invited to give a public lecture themed 'Taipei Challenge: New Planning Initiatives', covering the economic, social, environmental, technological and

political challenges that Taipei has encountered, the ways to deal with these issues and strike a balance between development and the expectations of society. In attendance were not only the general public and students who were interested in the topic, but also experts in the field, including Mrs Carrie Lam, Secretary of Development of the HKSAR Government.

Following Professor Lin's presentation was a Panel Discussion moderated by Professor Rebecca Chiu of the Department of Urban Planning and Design, with Mr K.K. Ling, Deputy Director of the Planning Department of the HKSAR Government, Dr Peter Cookson Smith, President of the Hong Kong Institute of Planners, and Dr Roger Chan, Associate Dean of the Faculty of Architecture as discussants. They noted that many of the challenges facing Taipei were relevant to Hong Kong and that Taipei provided many lessons for Hong Kong in terms of community-based planning, especially Taipei's Beautification Project and the reuse and refurbishing of old industrial buildings and districts. ■

Keeping the Flame Alive The 'Szeto Wah Collection' Turnover Ceremony cum Exhibition

In virtue of the generous donation from the family of the late Mr Szeto Wah, some personal artefacts of the late Mr Szeto Wah have found a permanent home in the HKU Libraries. Vice-Chancellor Professor Lap-Chee Tsui and the Librarian Mr P.E. Sidorko were present at the 'Szeto Wah Collection' Turnover Ceremony cum Exhibition to express their gratitude to the Szeto family.

Fifty artefacts were selected by the Szeto family for the exhibition, but the full Collection comprises more than 10,000 items – including

books, periodicals, documents, manuscripts, letters, diaries, notebooks, photos, speeches, calligraphy, clippings – and will be housed in the Libraries' Special Collections to ensure that his beloved treasures will be carefully maintained and protected.

Mr Szeto was widely known and respected throughout Hong Kong. As the founder of the Hong Kong Professional Teachers' Union, a former Chairman of the Hong Kong Alliance in Support of Patriotic Democratic Movements of China, and a co-founder of the Democratic



From left: Mr P.E. Sidorko, Mr Szeto Keung and Professor Lap-Chee Tsui

Party, Mr Szeto dedicated his life to supporting education and advocating for the democratic development of Hong Kong. ■

The Difference Direct Encounters Make: The Gallant Ho Experiential Learning Centre

'Experiential learning' is a new and distinctive feature of the University's new curriculum. To help with the implementation of this form of learning, the Gallant Ho Experiential Learning Centre has been set up thanks to a donation by Dr Gallant Ho, also an HKU alumnus. A ceremony to launch the Centre was held on

March 19, 2012, which was attended by Dr Ho and officiated by Vice-Chancellor Professor Lap-Chee Tsui. Work done by faculties was also showcased at the event, and staff and students sharing their experiences described how future participants would benefit from experiential learning.

With the aim of developing an integrated and holistic understanding of different issues and putting textbook knowledge into practice, the idea of experiential learning is to take students into workplaces and other settings where they will directly encounter the phenomena being studied.

At a time when experiential learning is being incorporated in the curriculum of all faculties, the Gallant Ho Experiential Learning Centre will work with community partners, both within and beyond the territory, to identify projects for HKU students of different disciplines. Financial means and other forms of support will be provided to 1,000 students to complete their experiential learning projects each year. ■



Welcome back, Sam! A Hong Kong Legend 'Brightens' HKU with His Music

When Mr Sam Hui, an HKU graduate (1971) of the Faculty of Social Sciences and also one of Hong Kong's most famous pop stars, returned to his alma mater, the HKU community came out in droves to welcome him. Sun Yat-sen Place was packed with excited fans who had arrived to see the 'Brighten Me with Virtues: Sam Hui's World' dialogue-cum-mini-concert on February 8, 2012.

Organised by the General Education Unit of HKU, the event caused a sensation, with lots of students surrounding the stage to get a glimpse of the superstar. In a discussion with Dr C.H. Ng, Associate Professor, Department of

Sociology and Dr Wong Chi-chung, Assistant Director, General Education Unit, Sam not only shared his views on the changes in Hong Kong society and culture, and his thoughts on his music career, but also delightfully recalled his memories at HKU, including some unforgettable times in Ricci Hall.

Needless to say, the event would not have been complete without a few songs from Sam! Together with his son, Ryan Hui, Sam delivered one of his classic performances, singing in Cantonese and English and accompanied by the guitar. Since the song 'Brighten Me with Virtues' was a gift from Sam to HKU in

celebration of its centenary, it was fitting that the 'Brighten Me with Virtues Choir' joined him to sing the HKU 100 theme song, together bringing the event to a rousing finale. ■



Sam Hui staged a mini concert at the Sun Yat-sen Place.

Relics Tell the Stories of HKU

In this third of a series of stories on the University's centenary, we look at how the past and present are interwoven in collections from the University Archives that chronicle the people and milestones of HKU.

One hundred years is a long time to be collecting things and at HKU this has resulted in a University Archives with 3,000 linear metres of documents, paintings, silverwork, tapestries, a sword and many other valuable objects. Most of the items are kept in special archival storage facilities with security and environmental controls to ensure their preservation, but recently the University Archives brought some of the treasures into the light of day for a special exhibition and publication.

"The whole point of the University Archives is to tell the story of HKU and make it available not only to HKU and the HKU family, but to the public, so they can understand these deep bonds between HKU and Hong Kong and between generations," says University Archivist Stacy Belcher Gould.

Some of the relics can be seen on these pages and in many cases represent the fruit of much restoration work. Fluctuating temperatures and humidity, pests and especially war have all done damage to the HKU collection.

The most dramatic example is the portrait of Sir Cecil Clementi, former Governor of Hong Kong and lyricist of the HKU Anthem, which is the only surviving portrait from a group that hung in the Great Hall, now known as Loke Yew Hall. His portrait was removed during the Japanese occupation and survived, but suffered what appeared to be bayonet thrusts or bullet holes resulting in 11 major tears and more than 300 instances of paint loss. The picture was painstakingly restored by international conservator Dawne Steele Pullman who re-stretched it with copper nails backed by tyvek, cleaned the old varnishes off as well as the grime of decades, sanded it from the back, hand-mixed the pigments, and in-painted the repairs with tiny brushes.

"Processing archive collections is labour intensive," says Ms Gould. "We don't just store things, we preserve and conserve them, we arrange, describe, build databases and assist researchers. We're not the gatekeepers, we're the path builders."

That path links past and present, and she hopes more people in the University and the community will come to appreciate its importance. "We're trying to convey the excitement and passion we feel about HKU's history. If we don't do this now it will be gone, and once it's gone, you don't get it back."



The portrait of Sir Cecil Clementi before restoration (left) and after restoration (right), with Ms Stacy Belcher Gould, University Archivist, Dr the Honourable Leong Che-hung, Chairman of the Council and Professor Lap-Chee Tsui, Vice-Chancellor



The official seal of HKU



Sir Lindsay Ride's sword

War relics and officialdom

Most of the University's records and artefacts were destroyed or looted during the Japanese occupation, but one symbol of authority survived: the official seal of HKU. During the war, the seal's cut-steel dies were detached from the hand press by Professor R.C. Robertson and smuggled to the British Army Aid Group (BAAG), and then made their way to London. They were later returned and the seal was re-assembled with the hand press, which had been hidden in the Hotung Engineering Workshop, – and continues to be used on all official University agreements and contracts.

The BAAG was founded by future Vice-Chancellor Sir Lindsay Ride to help prisoners of war escape Japanese camps to Southern China, smuggle information about the occupying troops to the Allies, and resist the Japanese

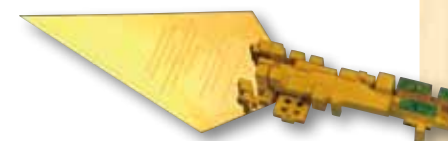
army. Uniforms, documents and other artefacts of the group are now part of the University Archives. So is Sir Lindsay's sword which, because it has sharp edges, had to go through several red-tape hoops before the Customs and Excise Department would allow it back into Hong Kong three years ago.

Foundation markers

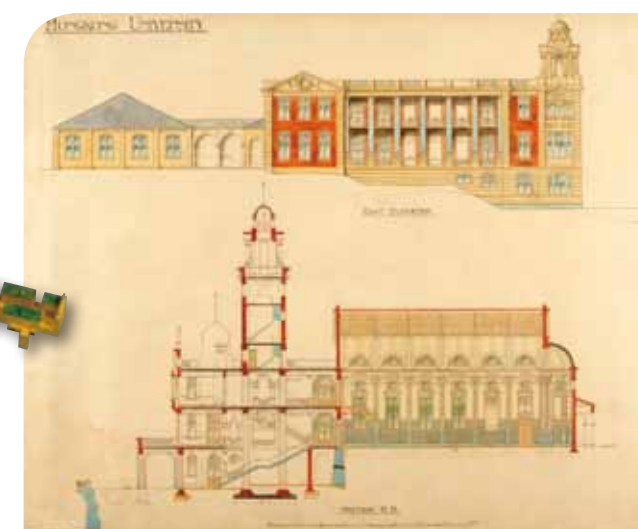
Three milestone ceremonies have involved the use of official trowels: the first ground-breaking in 1910, the redevelopment of the campus in 1978, and the Centennial Campus ground-breaking last year. All three trowels were on display together for the first time during the exhibition. The first trowel was fabricated in 14k yellow gold, with a carved ivory handle, two pieces of jadeite, and a gemstone that is possibly a pink tourmaline. The gold blade was annealed and softened in

the process when it was soldered to the handle and it bent when laying mortar on the stone in 1910. The MacLehose Trowel is made of nickel alloy with gold plating. The Centennial Trowel was fabricated in brass, plated in 23k gold, and embellished with 10 pieces of jadeite jade.

The original architectural drawings of the Main Building and first faculty quarters were donated by the great niece of former Governor Sir Frederick Lugard, who presided over HKU's founding. They were rolled tightly into a tin tube that protected them from light, dust and extremes of humidity and temperature, thus helping to retain the brightness of their colours. However, it took six months for them to flatten and to remove a build-up of surface dirt on the drawings.



The trowel used for laying the Foundation Stone for the Centennial Campus on March 16, 2010



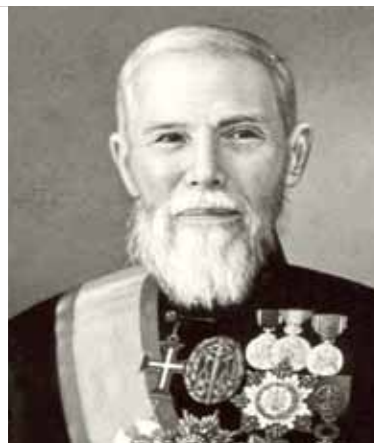
One of the original architectural drawings of the Main Building



The illuminated manuscript letter of congratulations on our 50th birthday from the Institutions of the Civil Engineers, the Mechanical Engineers, and the Electrical Engineers of Great Britain



Inkstand made in memory of Sir Robert Hotung



Sir Robert Hotung



Fung Ping-shan



Foo Ping-sheung



The Mace

Philanthropists

The great support given to the University by local philanthropists is seen in some of the collection's most beautiful objects. An intricate silver model of the Main Building was believed to have been commissioned in 1912 by the son of Sir Hormusjee Naorojee Mody, who provided crucial financial backing to establish HKU. The model underwent two months of cleaning and polishing by metals conservator, Paul Harrison, when it first arrived in the University Archives in 2006 and was then polished again in 2011 to prepare it for the recent exhibition.

Sir Robert Hotung was also a great supporter of the University and a silver inkstand was commissioned in 1956 in his honour, after a lifetime of giving to HKU. His brother Ho Fook donated the original University or Chancellor's Mace in 1913 as well as the anatomy building.



The silver model of the Main Building

This mace was lost during the war and replaced with an exact replica given by Leung Yew in 1951. A third Ho brother, Ho Kam-tong, donated the tropical medicine and pathology building as well as an ongoing award for the best student in public health.

One of the more charming items is a letter written in 1929 by Fung Ping-shan, who donated the building which was the Chinese Library and now houses part of the University Museum, including the galleries where the Archives' exhibition was held. Mr Fung wrote to the Vice-Chancellor, Sir William Hornell, and throughout the letter referred to himself as 'my friend': "I have the pleasure to inform you that my friend, who proposed to present the University a building worth \$100,000 for the Chinese Library, has confirmed his proposal."

HKU people

HKU, as the most prominent English-language university in the region, has long been associated with movers and shakers in society and academia. Sun Yat-sen and writer Eileen Chang are two of our more famous alumni, but many others made significant contributions in their fields.

For example, Foo Ping-sheung, who was in HKU's first graduating class in 1916, was part of the Canton delegation to the Paris Peace Conference in 1919. He went on to serve as secretary to Sun Yat-sen, Vice-Minister of Foreign Affairs in the Nationalist government, ambassador to Moscow from 1943–49, and head of anti-corruption in Taiwan, among other posts. He also helped to draft the Chinese Civil Code in the 1930s. Documents and photos of Mr Foo are in the University Archives.

Famous scholar Lai Jixi was the first head of the Institute of Chinese Studies, while English poet laureate Edmund Blunden was a professor of English from 1953–64. Papers from both scholars and a portrait of Blunden are with the Archives.

Future luminaries can also be found in the records of student societies. HKU has about 120 student societies and the HKU Students'

Union worked with the Archives to prepare student association materials for the exhibition.

"We wanted to show the University Archives is not just interested in collecting the official goings-on of the University, but also in student life and the people who have been a part of the story," says Ms Gould, "because it's the people who make HKU, not the buildings."

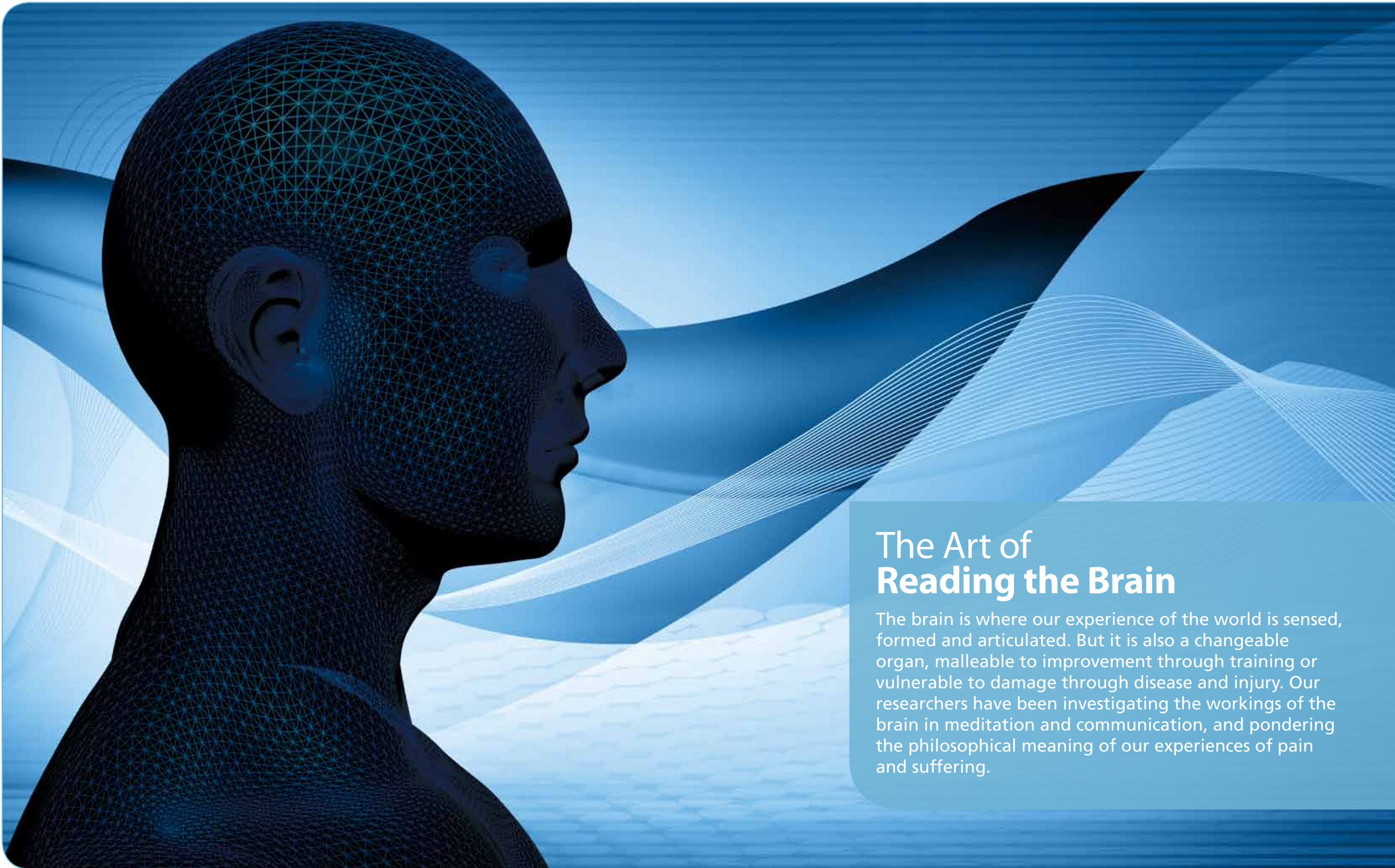
The exhibition HKU Memories from the Archives was held at the University Museum and Art Gallery in the winter and a related publication will be published later this year. ■



The oldest extant album of the University Union, which became the Students' Union after World War II



Engineering Society in 1926



The Art of Reading the Brain

The brain is where our experience of the world is sensed, formed and articulated. But it is also a changeable organ, malleable to improvement through training or vulnerable to damage through disease and injury. Our researchers have been investigating the workings of the brain in meditation and communication, and pondering the philosophical meaning of our experiences of pain and suffering.



Mindfulness over Matter

Evidence is mounting that meditation can change our brains and help us cope with everyday life.

Rub your finger on the same spot for 30 minutes every day and over time, the area of the brain associated with detecting that sensation will get bigger. And so it is with meditation.

People who regularly practise meditation have been found to have changes in the volume of their brain's gray matter and activity as compared to novice meditators.

"Experience changes the brain and meditation is itself an experience," says Professor Tatia Lee Mei-chun, May Professor in Neuropsychology, whose research is showing that different types

of meditation can affect different areas of the brain.

While most researchers have studied focused attention meditation, which centres on one object or bodily sensation such as breathing and affects the area of the brain involved in concentration, Professor Lee's team have studied loving kindness (LK) meditation, in which practitioners elicit compassionate feelings for themselves and others. They have found that this form of meditation also affects the brain, but in the regions involved with regulating emotions and mood.

Such findings are generating excitement outside of neuroscience because they hint at the potential for meditation – also called mindfulness – to improve people's daily lives.

In medicine, for example, it is seen as a way to help medical students look beyond clinical knowledge and consider the conditions of both the patient and themselves. The Faculty of Medicine has made mindfulness a key component of its medical humanities programme.

"The skill of mindfulness," says Chair Professor Chan Li-chong of the Department of Pathology, "is to bring the mind back to the present moment and stop it from ruminating on the past or worrying about the future. And certainly you can use mindfulness to engage in the things doctors do, like mindful communication with patients, active listening, and being aware of one's emotions without making judgements when facing an angry patient. Often we terminate the conversation with the patient because we have made a judgement already."

The Centre of Buddhist Studies has also shown that secondary school students can benefit from a practice that for centuries has been largely associated with spirituality. The Centre ran a programme in local secondary schools in which students' 'sense of coherence' – their ability to comprehend, manage and find the meaning of life – was enhanced by the interaction of Buddhist teachings and workshops which included meditation.

"Sense of coherence has been strongly linked to both physical and mental health outcomes. So if we can enhance it, this would enhance students' ability to handle stress," says Venerable Sik Hin Hung, Acting Director of the Centre of Buddhist Studies.

In the pressured, time-constrained conditions of modern living, taking a moment to breathe deeply and calm the mind may prove to be a welcome boost to our well-being.



Neuroscience and Meditation

“Different forms of meditation have different effects on the brain.”

Professor Tatia Lee

Professor Lee began studying the neuropsychological effects of meditation in 2006 and is patiently building up data that shows those who meditate have different brain architecture and functions than those who do not, and that different types of meditation have different effects on the brain.

Working with experienced practitioners of both focused attention and LK meditation, as well as novices, she has been able to pinpoint differences in brain volume and in the blood oxygen-level dependent (BOLD) signal which indicates brain activity.

In one study, participants were asked to respond to specific signals on a computer screen and ignore irrelevant signals. Those experienced in focused attention meditation were the best performers at this concentration task. Interestingly, LK meditators did not perform well, although both groups did better than the novices.

However, LK meditators showed marked differences in brain activity in another study that asked them to look at emotional, or affective, pictures.

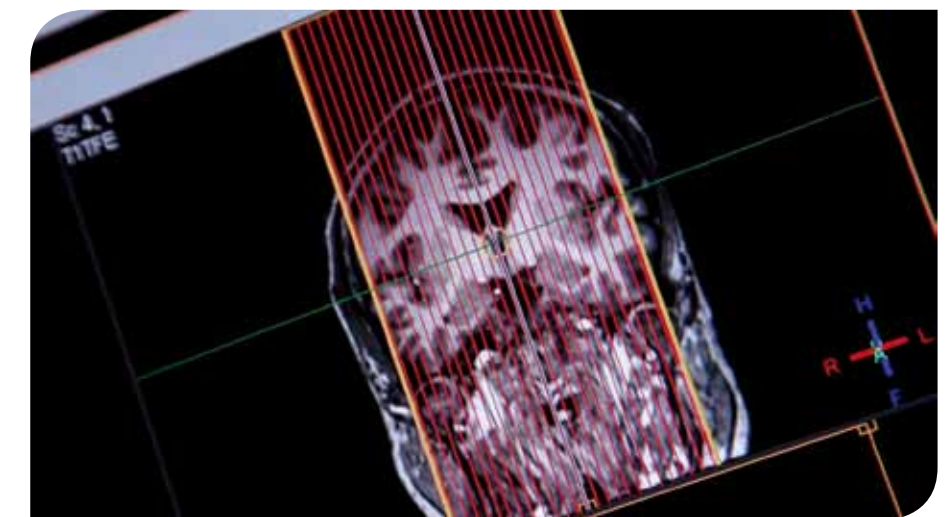
"We couldn't say who performed better at that task because we didn't have behavioural anchors, but when we looked at LK meditators

compared to the control group, their BOLD signals were different and so were the structures of their brains that correlated with the emotional processing network in the brain," Professor Lee says.

What this means is that the effects of meditation are more complex than previously thought. "Different forms of meditation have different effects on the brain. So the implication is that we may use different forms of meditation for a specific purpose."

More research is needed to identify the full effects and potential of LK meditation, but the intuition is that it may help meditators to arrive at a tranquil and calm state. If so, it could have significant implications.

"There is a high percentage of people in our community who are affected by emotion dysregulation – depression, anxiety, you name it," says Professor Lee. "Maybe down the road we can look into this. Meditation seems promising for possible clinical application."



Coronal view of the brain



Medical Introspection

“It’s not just that students do the meditation exercise. They appreciate how it helps them.”

Professor Chan Li-chong

It also has promise for application with clinicians, as the Faculty of Medicine is finding. Last year the Faculty completed a two-year project to train frontline hospital staff in mindfulness. Now, it’s the turn of medical students.

Mindfulness has been incorporated into the developing medical humanities curriculum, which aims to help students develop resilience and well-being so they can better deal with the stresses of their occupation. The curriculum also covers narrative medicine (focusing on doctors’ and patients’ stories) and consideration of such issues as culture, spirituality and healing, and death, dying and bereavement.

Pilot projects held last summer and this winter taught students how to be present and mindful in the here and now, even when walking and eating, and to apply this awareness when dealing with patients.

“The students say they find it very helpful to be listened to and they find they are understood

when someone listens without interrupting them,” says Professor Chan.

“Conversely, they find it difficult to listen to someone without interrupting them. But if you really pay attention when a patient is talking, you will understand more about their situation.”

“It’s not just that students do the [meditation] exercise. They appreciate how it helps them, their relationships with their peers and family, the way they look at a patient who complains or talks to them, and how they can at least be there to listen to them.”

That effect of mindfulness training supports the wider goal of the medical humanities curriculum to promote medicine as something deeper than just a good understanding of biomedicine.

Dr Julie Chen Yun, Assistant Professor in the Department of Family Medicine and Primary Care, says: “I think for a long time, it has been taken for granted that students would

automatically absorb this other side or pick it up. To an extent they do through role modelling, but increasingly we’re finding that it’s something that can be nurtured. If you start early and put it in the curriculum in such a way that recognises it is important, i.e. by making it compulsory, then it sticks in their mind. They value it more if they see that we value it.”



From left: Ms Venus Wong, Professor Chan Li-chong and Dr Julie Chen Yun



Finding Deeper Meaning

“We tried to help students find the meaning of life by introducing them to the Buddhist understanding of life and at the same time teaching them how to manage life through Buddhist practices including obviously mindfulness practice.”

Venerable Sik Hin Hung

What if this training started even earlier – before students arrived at university, strung out in some cases by the demands of Hong Kong’s secondary school curriculum? That is a question of particular interest this year with the switch to a four-year university curriculum in Hong Kong and the admission of undergraduates who will be one year younger and less experienced than previous intakes.

The Centre of Buddhist Studies sought answers through a project in which secondary school students received Buddhist education and interactive workshops to see whether this would improve their sense of coherence. The workshops included meditation, as well as games, outings and other activities.

More than 600 students were divided into three groups. One group attended the interactive workshops and received lectures on Buddhism, one group received only the lectures, and one group received none of these. Before and after tests on students’ sense of coherence found a significant improvement for those in the first group who also performed well in their final grades in Buddhist studies.

In fact, the ability to benefit from the workshops is correlated with the students’ knowledge of Buddhism, although students who only attended lectures in Buddhism but did not attend the series of workshops did not receive the same benefits.

Interestingly, the students in the workshops said meditation was their favourite activity.

“We tried to help students find the meaning of life by introducing them to the Buddhist understanding of life and at the same time teaching them how to manage life through Buddhist practices including obviously mindfulness practice,” Venerable Sik says.

“You can’t just go to workshops and not study. Or study and not go to workshops, nothing happens. You need the theory and the practice.”

The theory and practice intersect in pondering the deeper questions of human existence. Venerable Sik says they played a game in which students rolled dice to see who would get expensive candies and who would get cheap candies. They rolled again for a chance

to take other people’s candies, and that was the end of the game. Students were then asked how they felt about the game, whether it reflected the state of the world, whether it was fair, how they might view the game if they had the nicer candies and so forth.

“There are situations in life where you are just left with the bad side. How do you deal with it? Just by being angry? Or would you humbly submit? Or can you be happy with a little bit of candy? Obviously you can. There are many things to discuss. Who was in charge of the allotment – somebody else? You? God? Was it just simply luck or something else? This is comprehensibility. You need an environment where you can explore these questions,” he says, adding that the Centre is now seeking funding for a permanent venue to sustain the teachings and workshops for students.

You also need an appreciation that these questions matter. The hope is that our scholars’ contributions to the application and understanding of mindfulness will provide evidence and inspire others to explore this ancient but still developing practice. ■

The Philosophy of Pain and Suffering

Everyone experiences pain and suffering at some point in their lives, so what is the role of pain in human existence?



“We want to illuminate the role of pain and suffering in people’s lives and how they are intertwined.”

Dr Barbara Dalle Pezze

Pain has many dimensions. There is the distinction between physical pain and mental suffering. There are the influences of social, cultural, spiritual and personal factors that shape experiences and perceptions of pain, and perhaps of self. Often those who live in chronic pain or suffering seem to exist on a level not encountered by others in their daily lives.

These concepts are the starting point of a project under the Centre for the Humanities and Medicine called ‘Philosophy, Therapy, Medicine’ led by Dr Barbara Dalle Pezze, a post-doctoral fellow in Philosophy.

“Pain and suffering cannot be detached from an understanding of health in the broader sense and the well-being of people, because they are part of our lives,” she says.

“People always ask me, do you mean physical pain or psychological suffering? What I’m investigating is the nature of pain and suffering before they have been divided. Medicine treats mainly physical pain and we want doctors to do that, but psychological suffering belongs to the realm of pain, too.”

“Philosophers want to go into the nature of things, the essence. We want to understand what pain and suffering are because as humans, we are both body and mind. We want to illuminate the role of pain and suffering in people’s lives and how they are intertwined.”

Pilot project

To reach that understanding, Dr Dalle Pezze has linked up with the Department of Clinical Oncology to establish a dialogue on the nature of pain and suffering. This has so far included a pilot project in which recent graduate doctors

were asked to collect patient narratives on their experiences of pain.

“The doctors found out how patients actually feel and live their experiences, and this helped the doctors to see how powerless they felt before these experiences, how awkward they felt when approaching certain stories.”

“This is one effect of pain and suffering because it helps you to understand yourself better. And if you have doctors who are able to interact better with patients because they understand or at least can cue into the patients’ experiences, even if they have only three minutes with their patients, they will probably be more capable of giving some comfort to the patient.”

Reaching people in the depths of pain

One of the goals of the projects, apart from shedding light on the philosophical essence of pain, is to see how these insights can be integrated into daily life.

“The German philosopher Martin Heidegger spoke of pain as a threshold. Usually people consider reality only on the level of existence which seems to be just one side of the threshold, but there is another dimension different from the one we’re used to considering and living in. For people who live in pain or endure suffering, it is like they are always living at a level that is not encountered by other people in their daily lives, a level of existence which is different.”

“So how do we reach these people at the depth where they are living? It’s as if they are inhabiting a different world. Pain opens up the



threshold to this world where many people are trapped, detached from the rest of society.”

“A simple example is if you live close to a person who has been suffering for a long time. How many times do you enter the room, pretend he’s not sick and talk of other things?”

Reflecting on the nature of pain

Philosophy offers a way to reflect more deeply about these issues. For instance, is pain something else in addition to a physical sensation? And if so, does it influence a person’s existence and well-being?

“People do not know much about philosophy and they tend to see it as something abstract, that doesn’t pertain to reality. Philosophy needs to be redirected – brought back to help people live better and understand their lives; after all, originally it was also a way of dealing with very practical issues,” Dr Dalle Pezze says.

That goal will be pursued further with a new comparative study to interview patients in Italy, Hong Kong and the UK in their native languages. It will follow on from the doctors’ project by exploring how patients describe and relate their experiences of pain, with the aim of shedding more light on this universal aspect of human existence. ■

Tripped up by the Tongue

The sources of language disorders, especially in Chinese and bilingual speakers, are being investigated by our researchers.



Imagine the nightmare of a stroke victim who can understand speech but can't produce intelligible sentences, or produces sentences but can't understand speech. Or a child of normal intelligence who struggles to read and write.

These scenarios are driving research at HKU that seeks to understand language development and disorders in Chinese and bilingual speakers, as well as the workings of the brain.

Professor Tan Lihai, Director of the State Key Laboratory of Brain and Cognitive Science,

was recently awarded RMB39 million (HK\$47 million) from China's 973 Program to study the neurophysiology of Chinese language users, the first Hong Kong-led project to be funded by the national research programme. And Professor Brendan Weekes, Chair of Communication Science and a world expert on the language disorder aphasia in bilingual speakers, is investigating treatment and rehabilitation.

More language disorders in Chinese

Professor Tan's research is driven by the fact that Chinese speakers with brain damage

suffer far more from language disorders than people with similar damage in the US.

Some 70 per cent of Chinese with brain palsy, such as children born with cerebral palsy, experience language disorders against 20 per cent of Americans. Similarly, 70 per cent of Chinese speakers suffering brain damage due to stroke, tumours, epilepsy or other diseases experience language disorders against 50 per cent of Americans.

"Why do so many Chinese have language disorders? Possibly it's because there are more regions in the brain involved in Chinese language processing," Professor Tan says.

Previous research has shown that native Chinese speakers use more areas of the brain for speaking and listening than English speakers in order to handle the tones. Professor Tan's lab has also shown they use different areas for reading. However, unlike alphabetical languages, the genetic basis of the Chinese language is not well understood.

Professor Tan is therefore leading 25 experts from Hong Kong, China and the US to investigate the neurodevelopment of normal Chinese language users and those with language disorders such as stuttering and dyslexia. They will also look at how the different brain regions interact in language



Professor Tan and his team discovered the diversity of cortical regions for languages by investigating the neurodevelopment of normal Chinese language users.

activities, and the candidate genes behind Chinese language disorders such as dyslexia.

"The genetic study will help us to have early identification of patients with language disorders so we can have early intervention," he says.

Translating the findings into clinical approaches is also a goal and could be significant for other researchers such as Professor Weekes and his colleagues, who are among the world leaders in treating bilingual speakers who suffer from aphasia.

The special case of bilingual speakers

Aphasia is the loss of the ability to produce or understand language and it results from strokes, dementia and other diseases. There are obvious differences in how aphasia manifests itself in Chinese versus English speakers and more insights into language processing could help their treatment.

For instance, when the Broca's area of the brain is damaged, it affects the ability to produce language, including different verb tenses which is problematic for speakers of European languages but not Chinese. If the damage is in the Wernicke's area of the brain, the ability to understand language is affected, including tones, which makes it much more difficult for Chinese speakers.

But what's even more important, says Professor Weekes, are the commonalities seen. "The features of different languages do embellish the kinds of problems we see, but the general point is that problems of fluency and dysfluency occur across languages."

His research has helped to demonstrate this by studying people who speak more than one language. It turns out that rehabilitative training focused on one language can bring improvements to the other language even if the languages are very dissimilar, such as English and Chinese.

"This shows that what is critical is the cognitive process and exercising the brain," he says. "I study bilingual aphasia to understand the brain and how it works rather than only looking at



how to make people better. What does aphasia tell us about how the brain is organised?"

Larger brain matter

One feature of interest is that bilingual or multilingual speakers use a 'switch' in their brain to suppress one language while speaking another. This area is larger in their brain than in monolinguals', but it can be affected by brain damage and thus affect language processing.

Some multilingual patients may speak one language one day and another the next, while others may mix the languages together into an incomprehensible jargon. Language recovery

seems to depend most on which language was recently dominant, so someone whose first language was Cantonese but who mostly uses English in their professional and personal life may recover English first.

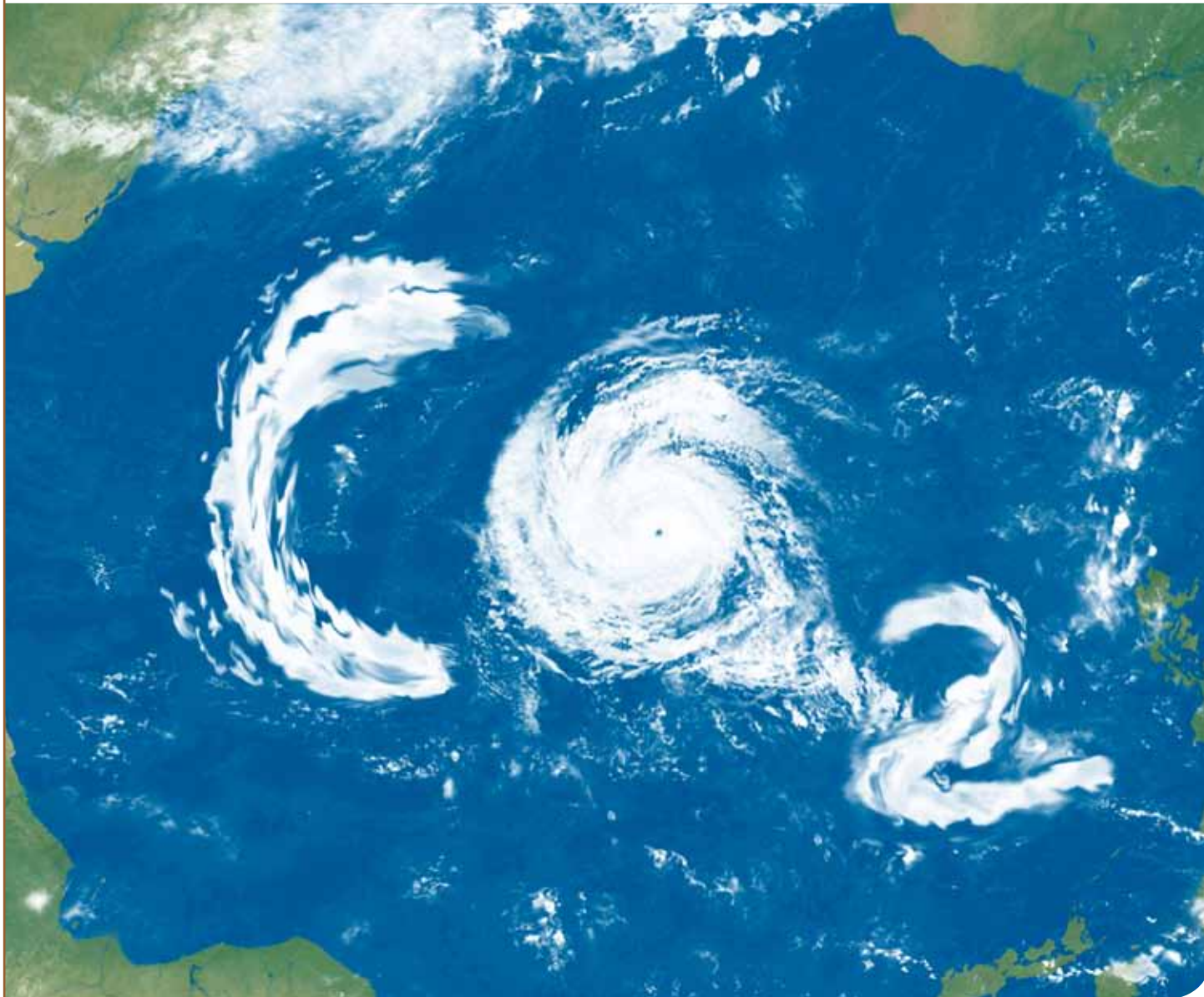
Professor Weekes' laboratory has also been working with Professor Jubin Abutalebi of Vita-Salute San Raffaele University, who is studying the brains of healthy bilingual people in Hong Kong and monolingual speakers in Mainland China and Italy. The expectation is that Hong

Kong bilinguals will have more gray matter, which could delay the onset of another brain disorder, dementia, and thus have important implications given the ageing population and the lack of any effective drug treatments for the disease.

"Every intellectual activity we do as we get older keeps our neurons working so they are more resistant to neuron degeneration. Bilingualism is one of the strongest inducers of this," Professor Abutalebi says. "Think of how much money the health system

could save if we delayed dementia by one or two or three years. Investing in language learning, even in adults, could protect against cognitive decline."

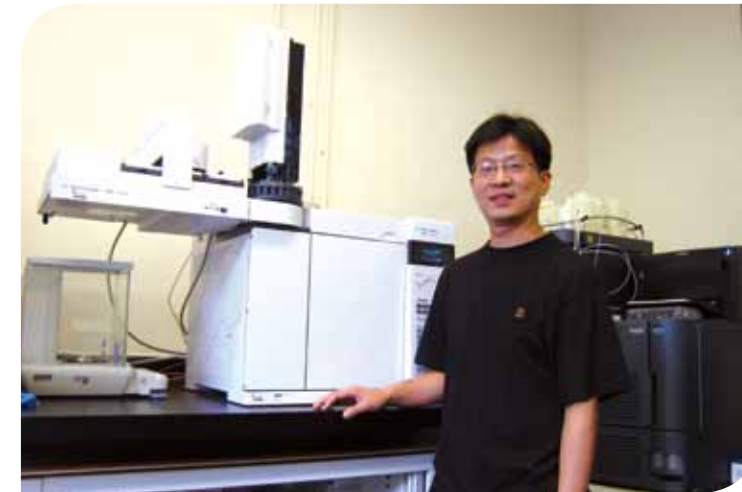
The evidence to support that, as well as the insights emerging from Professor Tan's and Professor Weekes' research, may well result in measures that improve the quality of life for people in China and around the world, particularly as they get older. ■



CO₂'s Role in the Big Freeze

New evidence says carbon dioxide was a major factor in climate change.

Scientists have long been puzzled by studies that seemed to indicate the apparently impossible: 34 million years ago at the same time the Antarctic ice sheet was forming, the Earth's atmospheric CO₂ was rising. Now an international team of scientists, including Dr Liu Zhonghui of the Department of Earth Sciences, have come up with new evidence disputing this and showing that a plunge in carbon dioxide levels happened at the same time as the climate dramatically cooled. The available evidence supports a fall in CO₂ as a critical condition for global cooling and cryosphere evolution at that time.



“Under careful re-examination of this interval, we discovered that the CO₂ drop was in phase with, and probably slightly prior to, temperature changes.”

Dr Liu Zhonghui

“Previous research suggested that CO₂ lagged behind temperature drop and ice sheet formation by two to three million years, during the Eocene-Oligocene climate transition, around 33.7 million years ago,” says Dr Liu. “However, under careful re-examination of this interval, we discovered that the CO₂ drop was in phase with, probably slightly prior to, temperature changes. Therefore CO₂ should have played some role in this important climate transition.”

Their paper, ‘The Role of Carbon Dioxide During the Onset of the Ice Age’, shows that atmospheric CO₂ plunged by 40 per cent before and during the formation of the ice sheet, confirming that significant falls in greenhouse gas result in global cooling, in the same way that rises lead to global warming.

The new evidence was uncovered when the team generated CO₂ records from multiple different geographical/oceanic regions, and found that only CO₂ records from high southern latitudes showed abnormal patterns, while those from other regions showed patterns consistent with temperature changes.

Altered nutrient levels

“Because Drake Passage [the body of water between the most southerly tip of South America at Cape Horn and the most northerly

tip of the Antarctic peninsular] was opened up at about the same time, we suspect that the development of circum-Antarctic circulation significantly altered nutrient levels in the region, which affects the reconstruction of CO₂ levels,” says Dr Liu.

It became apparent that the flows of the deep ocean currents at the end of the Eocene period were very different from those of today because the shape and position of the continental masses were different. “It is commonly believed that on such long timescales, tectonic activities and changes in weathering carbonate and silicate rocks caused the drop in CO₂,” he adds.

Implications for today?

At a time when public awareness of climate change is at an all-time high because of worries over global warming, it would be easy to try and make a link. However Dr Liu urges caution. “The implication is that CO₂ as a greenhouse gas contributes to global warming. However, careful distinction should be made between this study and the current warming issue. The current CO₂ rise has only been happening for about 100 years, which in the context of geological time, is just a snapshot. The amplitude of recent global warming – again in a geological sense – is still quite small.”

“At the current stage, it is still very difficult to separate anthropogenic versus natural forcings. The role of anthropogenic CO₂ in the recent global warming has yet to be determined.”

But he also points out that atmospheric CO₂ is not always a bad thing anyway – when their levels are high, plants grow better. “Some believe the next Ice Age should have started already, but levels of CO₂ are keeping it at bay.”

For the new paper, Dr Liu was part of a team of scientists from universities in the US, the UK, Sweden and Australia. They also came from different disciplines and included geochemists, palaeontologists, and modellers. “The nature of global climate change requires interdisciplinary research,” he says. “We’ve been discussing the topic for many years, and are still continuing our collaborations now.”

Dr Liu, who is currently looking at climate change on the Tibetan plateau, has been working in this discipline for about 14 years. “I’m interested in past climate changes and the link to CO₂ changes because such research provides clues to future climate changes.” He smiles: “This is not only a scientist’s curiosity, as Winston Churchill said, ‘to know the future, you must know your past.’” ■

How Climate Change Sparks Major Human Crises?

Advances in paleoclimatology help a research team discover that European wars, famine, plagues and even human height were all driven by changes in climate.

“Our findings indicate that climate change was the ultimate cause and climate-driven economic downturn was the direct cause of large-scale human crisis in pre-industrial Europe and the Northern Hemisphere.”

Professor David Zhang

Debate over the relationship between climate and human crisis has gone on for more than a century, and recent studies have shown significant temporal correlations between the two – but it was only with the publication in December of research led by the Faculty of Geography's Professor David Zhang that the specific causal mechanisms underlying this relationship were properly analysed.

Advances in paleoclimatology enabled the extensive research team – who spread across the globe and covered multiple disciplines – to use temperature data and climate-driven economic variables to simulate the climate in Europe and the Northern Hemisphere between 1500 and 1800. They looked into every major conflict and crisis and correlated them to 14 economic, social, agricultural and demographic variables.

“Our findings indicate that climate change was the ultimate cause and climate-driven economic downturn was the direct cause of large-scale human crises in pre-industrial Europe and the Northern Hemisphere,” says Professor Zhang.

Cognitive research

He explains that “The theoretical contribution of this paper is greater than its discovery value.” Many other researches have covered this area, but the difference this time was “not the idea but the methodology. We undertook cognitive research not qualitative – new methodology using economics, sophisticated statistics including the Granger method of econometrics. There were 14 sets of data from different disciplines – it all took about four years.”

Their aim was to use better records to confirm the causal effects of climate change. “We used five criteria and those five criteria were

satisfied, thereby proving causal linkage. It was the verification we had been waiting for,” says Professor Zhang.

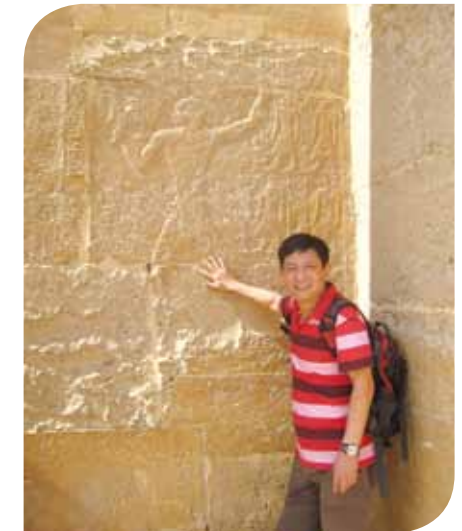
Clearly, it was very complicated and involved different disciplines which was why he invited so many people to join him in carrying out the research. It also meant the students involved were not all geographers – “which broadened my horizons as well as theirs,” he says.

The study was carried out in European countries for the simple reason that they have more sophisticated records from those times than Asian countries. “It's partly down to religion,” he says. “In Europe there are Church records of human heights, harvest yields etc. There are no such detailed records in China from that time.”

In addition, the period between 1500 and 1800 included plenty of variables in terms of temperature and of crises, taking in not only the Little Ice Age, but also including the General Crisis of the 16th century.

The researchers found that every change in average temperatures was related to a change in agricultural output and food supply and that led to crises. The effect was not immediate, so that at the start of a cold period the population would continue to rise, but then after several bad harvests the effects would be felt, with less grain produced but more mouths to feed. That in turn led to higher food prices and more hungry people who would then tend to revolt, migrate or starve.

The time lag between the drop in temperature and the crisis was usually about 15 years. For example, a drop in temperatures between 1264 and 1359 led to the Great Famine of the late Middle Ages. Climate change even led



to loss in stature – during a lengthy cold spell from 1559 to 1652 average heights in Europe shrank by nearly an inch.

“Also, well-organised societies fared better and those with economic power suffered less,” says Professor Zhang. “That's evidently true today – Hong Kong produces next to nothing in the way of harvests, but can buy everything it needs because it is financially strong.”

Economic failure

Overall, the implication from the study is: if you cut off the climate factor, then what effects human most directly would be economics. “Economic failure leads directly to human suffering – take Greece today,” he says. “But one step behind economic failure is climate change that leads to the poor harvest which in turn leads to economic failure.”

Of course what goes down also goes up and the findings also indicate that climate also influenced the better times – for example the Renaissance may have been at least partly sparked by a return of warmer temperatures.

Professor Zhang has been working in similar areas for many years, and started publishing his first papers on global climate change, war and population decline in 2005. Currently, he is working on how climate has effected the geopolitical rhythms of Imperial China over the centuries. ■

Hong Kong's Pivotal Role in the Pacific War

Hong Kong helped to supply the anti-Japanese forces in China and also acted as a lure to keep Japan from attacking Russia.

On December 8, 1941, Hong Kong was invaded by Japan. The city was not the international financial centre that it is today, nor was it the only Asian city occupied by an Allied power. So why Hong Kong? And why, three weeks before the invasion, was a troop of Canadian soldiers sent to defend the place?

These questions are at the heart of research by Dr David Macri, who was named an Outstanding Research Postgraduate Student by HKU for his work. He has shown that contrary to military history books, Hong Kong was not a sleepy colonial backwater, but in fact played an important role in military terms.

Firstly, it was a major supplier to the anti-Japanese resistance. "The Hong Kong port was free from Japanese occupation for four years and it was connected by rail to the middle of China, which made it a great route to bring in military supplies," Dr Macri says.

"Basically Hong Kong sustained the Chinese army for four years. You talk of the Burma road, but the route from Hong Kong was more important in tonnage terms. Without Hong Kong, China wouldn't have been able to fight for as long as they did."

Keeping the Japanese occupied

This was of particular interest to the Allies, especially US President Franklin Roosevelt, who wanted to keep the Chinese fighting so they could tie up the Japanese.

While that worked for several years, the clock began ticking when Germany invaded Russia in June 1941. The Red Army was weakened and the Japanese were thinking of invading the country from the East. "That would have been the end of the war," Dr Macri says, not in the Allies favour.

Japan also had an eye on Asia, especially Indonesia's oil reserves, so the Allies played on this to divert them away from Russia.

"Basically they baited them to come south," he says. "The Japanese could see a build-up in Singapore, the Philippines, they're worried about US naval forces in the Pacific. They could see time was running out. Then the Canadian troops came into Hong Kong and they had to act or concede to American pressure and withdraw from China."

The presence of the Canadians had been orchestrated by Roosevelt. American troops could not be sent because the country was neutral at the time, so he courted Canadian Prime Minister Mackenzie King, who sent a group of young and inexperienced soldiers to the territory.

A Chinese city versus a British imperial outpost

The Japanese responded by simultaneously bombing Pearl Harbour and invading Hong Kong in December 1941. The city fell after three weeks, but the goal of diverting the Japanese had been achieved.

"My work puts Hong Kong back where it belongs in World War II and that's in China, as opposed to being an imperial colonial outpost. It's a significant Chinese city in World War II," Dr Macri says.

This fresh interpretation of Hong Kong's role was possible because Dr Macri could uniquely combine two important elements: an understanding of the situation in Canada at the time, and of Hong Kong and China.

As a Canadian, he was aware of the sensitivities of sending soldiers to defend a remote British colony because of resistance from the country's French-speaking population – in fact, this was one of the reasons he began to explore the involvement in Hong Kong.

Putting the pieces together at HKU

Coming to HKU to do his doctorate enabled him to get a better understanding of the region. "The biggest help was beefing up my knowledge of Chinese history which I was lacking," he says.

"If I hadn't been in Hong Kong, I wouldn't have developed the thesis that I did. People who don't know about Hong Kong write about it in terms of the British empire. I would have fallen into the same trap. But being in Hong Kong you can see that doesn't make much sense. I was able to put both sides together."

A book based on his research, *Clash of Empires in South China: The Allied Nation's Proxy War with Japan, 1935–1941*, will be published later this year by the University Press of Kansas, one of the world's top publishers of military history. Meanwhile, Dr Macri is now working with the Joint PoW/MIA Accounting Command of the US Army in Hawaii to help track down the remains of US military personnel who are still missing in Asia. ■

“My work puts Hong Kong back where it belongs in World War II and that’s in China, as opposed to being an imperial colonial outpost. It’s a significant Chinese city in World War II.”

Dr David Macri





In Defence of Hong Kong's WWII Pillboxes: The Truth about the Gin Drinker's Line

A team from HKU have done a study on British and Japanese WWII military installations in Hong Kong for the purpose of preserving this important historic heritage – not a team of archaeologists, but a team of architects, planners, surveyors and enthusiasts.



Tai Hom Village Pillbox

The main aims of the study were two-fold: One to spark interest and two to conserve. Project organisers Professor Lawrence Lai and Dr Daniel Ho both of the Department of Real Estate and Construction, and Dr Lee Ho-yin of the Department of Architecture worked alongside an interdisciplinary team of experts, as well as enthusiasts from the community. They set out to study British and Japanese World War II military installations in Hong Kong and over several years conducted land surveys on key military structures.

Scattered all over Hong Kong, but often largely unnoticed, these structures included gun batteries, block houses, pillboxes, firing trenches and tunnels along the defence lines at war and at major battlefields. The team identified and mapped a total of 93 pillboxes along the so-called Gin Drinker's Line, a defensive system known as the 'Maginot of the East', which ran across the New Territories from Gin Drinker's Bay (Kwai Chung) to Port Shelter to defend against enemy invasion from the north into the Kowloon Peninsula and over to Hong Kong Island.

They also measured and mapped the incredible and extensive network of tunnels of the Shing Mun Redoubt above Shing Mun Reservoir – a bastion of the Gin Drinker's Line where an important and controversial battle which saw Japanese soldiers overrun the Redoubt in just three hours. After the fall of the Redoubt, the British defence of Kowloon unraveled and they quickly evacuated the Kowloon Peninsula. As a result, the Japanese were able to conquer the rest of the Mainland with little trouble. Over the years there has been some arguments about how and why this battle was lost so quickly – the team's research threw up some informed hypotheses.

'Evacuation inevitable'

"The British knew that if Japan invaded, the evacuation of Hong Kong was inevitable," says Professor Lai, "but strategy was to deny Victoria Harbour to the enemy. It was thought that Shing Mun would hold for a week. To be fair it was undermanned – the Japanese had a regiment of battle-hardened soldiers who'd seen action at the infamous Battle of Nanjing, the Allies had about 40 Royal Scots."

“We’d like the government to form a proper conservation policy to protect the Shing Mun site and to promote interest in it.”

Dr Lee Ho-yin

"Having studied the layout, what we now think happened is that the Japanese attack force realised that the Redoubt was unprepared (the observation post [OP] was facing the wrong direction), and took the initiative to attack in darkness, easily taking the Redoubt. They held 20 guys captive in the OP."



Professor Lawrence Lai, Department of Real Estate and Construction



Tunnel system

It's a fascinating story, and the team hope their findings will spark renewed interest in this period of Hong Kong's history. "The ultimate aim of the project is to conserve these structures," says Dr Daniel Ho. "We wanted to arouse people's interest and thereby encourage the authorities to put in place proper conservation measures to protect them. To do so we needed the facts, so we set out to map the tunnel system and the pillboxes."

Dr Lee Ho-yin adds: "We'd like the government to form a proper conservation policy to protect the Shing Mun site and to promote interest in it. Now, it's totally open so hikers and weekend wanderers roam all over it – inevitably some damage has been caused."

Acknowledging that Hong Kong's reputation for preservation and conservation is poor, the three men point to Mainland China's policy of using military heritage as centres for civic education and cultural tourism, citing the war museum at Harbin, which was the base of Japan's 731 Regiment, and the German fortifications at Qingdao where there was ferocious fighting against the Japanese during WWI. Even Macau has done a better job in preserving its recent western military heritage.

Says Dr Daniel Ho: "There are books on what happened during the Battle for Hong Kong, but these have been done from a historical perspective and not a factual one. There were no accurate maps or plans of the pillbox sites."

Adds Dr Lee Ho-yin: "Mapping actual cultural resources is now seen as a very important part of cultural research and protection."

Asked why the government has not done this, he is cynical: "I think the government hasn't worked out how to make money from it – there is a lack of long-term vision in this area. However, if they look at overseas examples, conservation can bring benefits – people are interested in history. It attracts tourists."

Dr Daniel Ho continues, "And not just tourists, Hongkongers should be more interested in their recent history. If the site is properly preserved and protected, we can make better use of the site for the public. The tunnels in



Japanese attack routes at Shing Mun (British view)



Japanese attack routes at Shing Mun (Japanese account)

the Shing Mun Redoubt are very accessible, but at the moment they are in danger of being accidentally damaged by hikers."

It seems their work has produced results already. "The Agriculture, Fisheries and Conservation Department is renovating their mini museum-tourist centre at Shing Mun with a view to disseminate information about the Redoubt, and didn't know about our research," says Professor Lai. "Dr Lee Ho-yin put them in touch with us and we're exchanging information to help create a museum which shows, amongst others, the team's findings."

And what is the conservation planning angle? Says Professor Lai: "At present, there is no single government map that shows accurately and comprehensively the key military installations. We hope our findings will provide information for incorporation in government survey maps and town plans for the purpose of conservation development."

Role of HKU students

There is also much historic interest from HKU's point of view. At the critical battle on Hong Kong Island at Wong Nai Chung Gap, the invaders suffered high casualties due to two pillboxes held by members of the No. 3 Company of the Hong Kong Voluntary

Defence Corps. Some members of this and other companies were HKU students, many residing in Ricci Hall. GIS analysis there has provided further evidence on the historicity of the bravery of the defenders and effectiveness of the pillboxes in the battle.

Their research will also be used by the University today. Says Professor Lai: "Our press conference – which was held on December 8 last year, the 70th anniversary of the Battle of Hong Kong – was a vehicle for Knowledge Exchange activities." It achieved its objectives of attracting government and media interest. The Japanese media were particularly interested in the kind of the on-going research. He and Dr Daniel Ho are now working on a book about the pillboxes of Gin Drinker's Line.

"We've also used the findings from this project to launch a new Common Core course for the next academic year," concludes Professor Lai. "We hope this will all help to kindle interest in these sites. Hongkongers should be proud of their history." ■



Markings on the tunnel wall



Award Presentation Ceremony for **Excellence in** **Teaching & Research** **2011**

Celebrating Outstanding Teachers and Researchers

The distinguished achievements of our academics were honoured at the 11th annual Award Presentation Ceremony for Excellence in Teaching and Research.

Twenty-three awards were conferred for success in inspiring students, nurturing talent and contributing to knowledge and discovery.

Pro-Chancellor, Dr the Honourable David Li Kwok-po, congratulated the recipients and noted that their awards had particular resonance given this is the University's 100th anniversary.

"We are reminded how far this University has come," he said. "Your important work gives us the ability and motivation to continue to grow as an international centre of learning and research excellence."

This is particularly important given the University is in the midst of preparing to introduce the new four-year curriculum in September and is concurrently expanding its research activities, particularly in the area of theme-based research.

The Vice-Chancellor, Professor Lap-Chee Tsui, noted these changes as the University looks forward.

"As we enter the University's second century, we recognise the achievements of those who have gone before and anticipate the exciting developments of today's and tomorrow's innovators," he said.

A summary of the awardees and their achievements are in the following pages. Further information and photos can be found at <http://www.hku.hk/award/>.

Award Presentation Ceremony for
**Excellence in
 Teaching & Research**
 2011

Outstanding Teaching Award

Recipients of this award demonstrate excellence in teaching and engaging with students and their learning. They have also made important contributions to curriculum design, renewal and innovation.



Dr Esther Cheung Mee-kwan

School of Humanities (Comparative Literature)

When it comes to the subject of teaching, Dr Cheung has a couple of favourite quotes: "Education is not the filling of a bucket, but the lighting of a fire" by W.B. Yeats; and Margaret Fuller's "If you have knowledge, let others light their candles at it."

In a move that is typical of the individuality that marks her teaching style, she adds a personal twist to those quotes, saying "an excellent teacher ignites the 'fire' in her students, not so much by filling the bucket as letting them light their own 'candles'."

She considers the study of comparative literature in Hong Kong an 'event' which is on-going, and aims to empower students "to lead a vibrant and sound life characterised by a keen interest in learning, self-awareness, thoughtful reflection, as well as empathetic engagement with people and the world around them."

This connection beyond academia strikes a chord with students. "She makes us believe that each of us counts in history, as a cultural contributor to our own cities... and through her lectures we find within us potential poets and artists," says current student Xue Junyuan.

Dr Cheung believes that "One is not born a good teacher but becomes one," adding "I dedicate this award to all my students who have inspired me to learn to teach and to those who will tread the future path of becoming with me."

Dr Daniel Churchill

Faculty of Education

Active learning is key to Dr Churchill's approach to education. "Learning in my classes is most effective in student-centred activities in which every student is supported in their use of curriculum materials, and urged to collaborate and develop deep understandings rather than superficial remembering."

As a strong believer in lifelong learning, Dr Churchill adopts this active approach in his own life and is constantly researching and exploring new technologies and pedagogies.

Those technologies include integrating extra-classroom digital activities such as Facebook and blogs into his teaching, a move he regards as vital if teachers today want "to design currently relevant learning experiences for their students".

Dr Churchill's forward thinking in this area has enabled some of his students – themselves teachers – to use technology confidently in their own classrooms. "Daniel provided the confidence and incentives to put forward innovative ideas in authentic teaching practices, as well as offered clear guidance on the simplicity of constructing technology learning tools," says current MSc(ITE) student James Hopwood who is IB Head of Science at the Diocesan Boys' School.

An advocate of the teacher's role as motivator, Dr Churchill encourages his students to work with materials and each other while he acts as a facilitator "providing timely feedback and subject matter expertise".



Dr Eric Henry Schuldenfrei

Department of Architecture

"An education is not just preparing an individual for life; education is life itself."

This belief underpins Dr Schuldenfrei's teaching philosophy and was shaped early on by the influence of his grandfather who, upon retiring, went back to school and demonstrated that education was lifelong. Dr Schuldenfrei tries to convey this concept to his students.

"I find it absolutely essential to study a specific discipline, to expand one's level of expertise, but also to develop platforms so a student may continue the investigation over a lifetime," he says.

One of the platforms he promotes is the use of new media, in particular film, to encourage students to explore, create and understand their material. Professor Daniel Chua, Head of the School of Humanities, says Dr Schuldenfrei "has understood a fundamental shift in the mindset of students and the ways ideas are learned."

Dr Schuldenfrei also seeks opportunities for students to participate outside the classroom and see the wider environment in which they work. "I would like for students to become aware as we create new cities or new environments that we also have to question what we're erasing, what we're destroying," he says.

The lesson has hit home with students. Chan Yiu-kwan, a MArch 2011 graduate, says: "Not only did he provide the skills and knowledge for my education, but more importantly the ability to constantly question and critique myself."

Dr Tong Pui-ling

Department of Chemistry

When Dr Tong was a secondary school student, her teacher poured too much sodium into a beaker of water. "Suddenly a beautiful and intense spark appeared in front of me. I think that was the starting point for what I do today," she says.

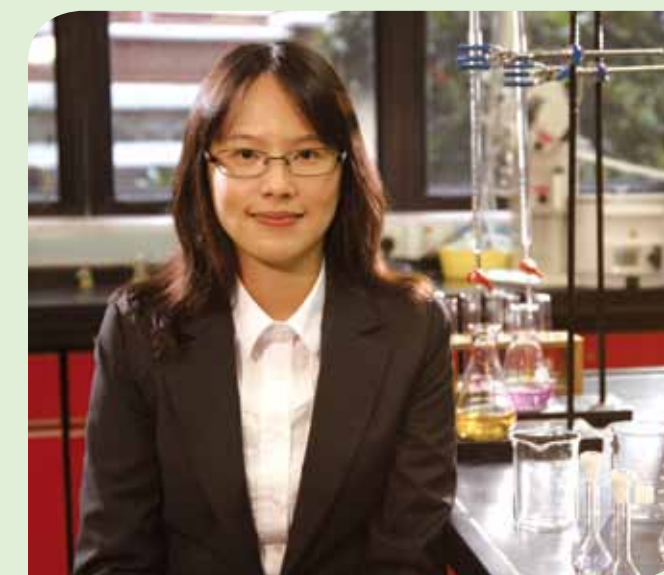
Dr Tong has a keen interest in chemistry and its role in our everyday lives and she tries to instil that same passion in her students.

"When I recall my own experience as a student, teachers not only helped students to develop academic ability but also played an important role to shape their values and attitudes," she says.

"I have plenty of opportunities to interact with my students. I am glad that many of them have trust in me and would approach me for discussion on both academic and non-academic matters."

Students find inspiration in her open style. "Dr Tong is incredibly nice and you can really tell she cares about teaching and all of her students. She continually listens to what we are not clear about and tries her best to solve our problems," says BSc (Chemistry) student Law Sin-yee.

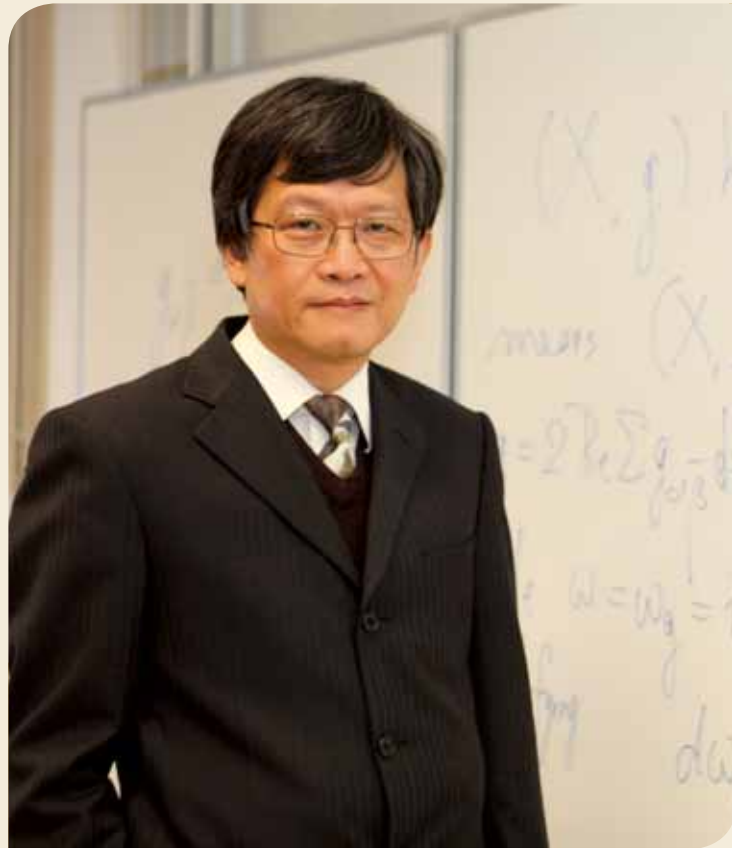
This is a two-way process as Dr Tong sees teaching itself as a learning process. "I am also learning from my students how to improve myself. I am truly grateful to them for being the source of my passion for teaching."



Award Presentation Ceremony for
**Excellence in
 Teaching & Research**
 2011

Distinguished Research Achievement Award

The DRAA is HKU's most prestigious research award, bestowed on only a few outstanding individuals for their sustained and exceptional efforts in research.



Professor Mok Ngaiming

*Edmund and Peggy Tse Professor in Mathematics
 Department of Mathematics*

In his speech introducing Professor Mok at the Award Presentation Ceremony for Excellence in Teaching and Research 2011, Pro-Vice-Chancellor Paul Tam described the DRAA as the most prestigious research award, adding "privately we call it HKU's Nobel!"

It is fitting then that such an honour should go to Professor Mok, a distinguished mathematician with an outstanding history of excellence in research.

"Professor Mok is a highly talented and devoted researcher of world-class standing," said Professor Tam, "and, I might add, a very loyal servant of the University. I am particularly delighted that he is now receiving the University's Distinguished Research Achievement Award."

In addition to being Chair of Mathematics at HKU, Professor Mok is Director of the Institute of Mathematical Research. He specialises in complex

differential geometry, several complex variables and algebraic geometry. He is well-known for having solved a number of outstanding mathematical problems related to curvature and symmetry in geometry.

These include his celebrated work in 1988 resolving the Generalised Frankel Conjecture using evolution equations in partial differential equations and rational curves from algebraic geometry. In the last decade Professor Mok, together with Hwang Jun-muk, laid the foundation of a differential-geometric theory of minimal rational curves, solving a series of difficult classical problems in algebraic geometry.

Since the early 1980s, Professor Mok has been collaborating with mathematicians from Mainland China. In 1989, his article with the late Professor Zhong Jiaqing in *Annals of Mathematics* was the first article in the *Annals* co-authored by a mathematician from Mainland China since China opened up in the late 1970s.

His talents are not confined to mathematics – he is also multi-lingual and has lectured on mathematics in English, Putonghua, Cantonese, French, German and Italian. He also reads half a dozen other languages. As Professor Tam joked during the presentation ceremony, "Maybe he should also have an honorary professorship at the School of Languages."

An avid reader since childhood, Professor Mok's favourite subjects include cultural history, philosophy, linguistics and poetry.

But mathematics remains his main passion and he has delivered invited lectures on a wide range of subjects within the discipline, including recent plenary talks in key meetings around the world. In 2011 he was Distinguished Lecturer at the National Centre for Mathematical and Interdisciplinary Sciences of the Chinese Academy of Sciences and at the Mathematics Research Center of Stanford University.

Being awarded the DRAA, marks the latest in a long list of honours that have been bestowed on Professor Mok. He was a Sloan Fellow in 1984, and received the Presidential Young Investigator Award of the US in 1985, the Croucher Senior Research Fellowship in 1998 and the State Natural Science Award (Class II) in 2007. In 2009, he was awarded the Bergman Prize of the American Mathematical Society for "his fundamental contributions in several complex variables, in particular, in the geometry of Kähler and algebraic manifolds."

Award Presentation Ceremony for
**Excellence in
 Teaching & Research**
 2011

Outstanding Researcher Award

This award goes to scholars who produce excellent research of international merit. They receive \$250,000 to further their research.



Professor Francis Chin Yuk-lun

*Taikoo Professor of Engineering
 Department of Computer Science*

Professor Chin has a thirst for new challenges and new ideas. He ran his first marathon at the age of 53 and his academic career has been marked by a curiosity to explore new fields.

Since completing graduate studies at Princeton University and joining HKU in 1985, he has ventured into such areas as algorithm studies, database security, and distributed and parallel computing. Recently he has applied his talents to the field of bioinformatics to help solve biological problems, especially those related to genomes.

One project with the Department of Medicine involves breaking down the genome of leukaemia patients into billions of pieces and using next-generation sequencing machines to assemble them and compare them with those of healthy people.

"I used to work alone but now working in bioinformatics, I have to work with people to find solutions for biological and medical research. I find it challenging and exciting," he says.

"One of the main purposes of living is to benefit the next generation. I hope that what I'm doing right now is making a small contribution towards that direction."

Professor Tatia Lee Mei-chun

*May Professor in Neuropsychology
 Department of Psychology*

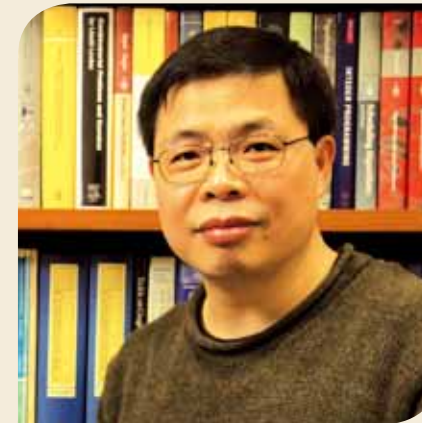
What defines who we are, as a human species and as individuals? It is a question that motivates Professor Lee, who has worked in collaboration with local and overseas clinicians and scientists to unravel some of the secrets of the brain.

"I'm interested in studying the brain because I find this very magnificent organ defines who we are, how happy we are, how sad we are, how we make our everyday decisions. It is really the master of our emotion, our thinking and our feeling," she says.

Professor Lee came to HKU in 1996 after obtaining her PhD from the University of Alberta and she is currently Chair Professor of Psychology and Honorary Professor of Psychiatry and Medicine.

Her research interests extend beyond the healthy brain into investigating what happens when things go wrong, for instance when a person suffers dementia, a stroke, Parkinson's or other diseases that affect the brain.

"We hope to understand how the brain maintains its health during the process of ageing and how the brain recovers from various illnesses," she says.



Professor Zang Wenan

Department of Mathematics

The great mathematician, Henri Poincaré, once said, "Mathematical discoveries, small or great, are never born of spontaneous generation. They always presuppose a soil seeded with preliminary knowledge and well prepared by labour, both conscious and subconscious."

He might also have added that mathematics is an art. Professor Zang has taken inspiration both from Poincaré and this concept of art.

"I like Chinese calligraphy because I can experience beauty through it. In fact, mathematics is also an art," he says. "I summarise my research philosophy in two words: beauty and quality."

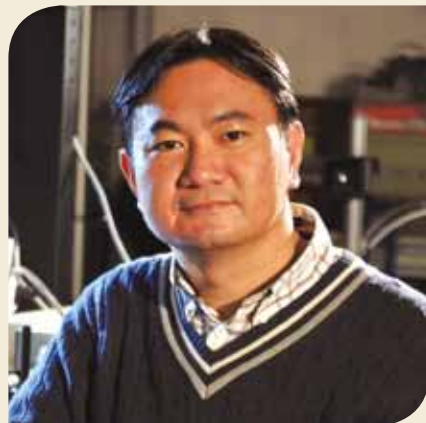
Professor Zang joined HKU after obtaining his PhD from Rutgers University in 1995 and he has successfully resolved several prominent long-standing open problems, such as the Three-Colour Conjecture. He has been honoured for his efforts internationally and published in the flagship journals of operations research, computer science, and discrete mathematics.

His achievements have emerged from an unceasing dedication to his topic. "Mathematics is part of my life; it's not something that I can put aside on weekends or public holidays."

Award Presentation Ceremony for
**Excellence in
Teaching & Research
2011**

Outstanding Young Researcher Award

Exceptional academic staff aged under 40 and ranked Associate Professor or below are recognised with this award.



Dr Benjamin John Cowling

School of Public Health

The epidemiology of influenza and other respiratory viruses is at the heart of Dr Cowling's research. He and his research team have scrutinised how easily influenza viruses can spread in households, and the efficacy of measures to reduce transmission such as face-masks and improved hygiene.

"I'm interested in studying infectious diseases because they are all around us all the time," he explains. "Things like influenza can appear very quickly."

"It's terrible to think that these diseases can strike so suddenly and so severely, and that's what fascinates me about researching infections."

His recent research has focused on the effectiveness of influenza vaccines in children, and the complex transmission dynamics of the different respiratory viruses that continually circulate in Hong Kong.

"Infectious diseases are changing all the time, and we need to work hard to keep up with them," says Dr Cowling, "and we are now trying hard to find more ways that we can reduce their impact and do more to reduce the spread of different kinds of diseases."



Dr Choi Hoi-wai

Department of Electrical and Electronic Engineering

Unwavering perseverance and determination are the pillars of Dr Choi's research. In today's environmentally-conscious world he sees it as only sensible to be developing electrical appliances that use less energy and one of the main aims of his current research is to develop solid-state lighting based on semiconductor light-emitting devices that will promise substantial energy savings.

"My passion for research into light-emitting devices originated from my passion for lasers," states Dr Choi. He passes his own enthusiasm on to his students, countering the more mundane aspects of detailed research with an unflagging optimism and innovative problem-solving.

"He always has a novel idea to tackle difficulties and challenges," says PhD student Li Kwai-hei.

At HKU's Semiconductor Lighting and Display Laboratory, which Dr Choi established, he leads a team of researchers investigating frontier research topics including optical micro-cavities, nanophotonics, micro-displays and laser micromachining.

"While conducting research is undoubtedly a pain-staking process," says Dr Choi, "it is also a discovery into the unknown. Research is about innovation, passion and perseverance and about finding solutions nobody has ever thought of rather than an extension of existing solutions."



Dr Roberta Pang Wen-chi

Department of Surgery

If you're looking for a nine-to-five job, don't go into research – that is Dr Pang's advice to new research students. "You have to expect very long work hours and sometimes those hours might not result in anything."

Sometime they do however, and Dr Pang has experienced considerable success in her research area – cancer, particularly of the liver and colon. She published the first study to identify a population of cancer stem cells (CSCs) with metastatic properties from human cancer, which could accurately predict the development of metastasis in colorectal cancer patients.

She has also established close collaborations with several major pharmaceutical companies to design pre-clinical studies testing novel compounds for the treatment of cancer.

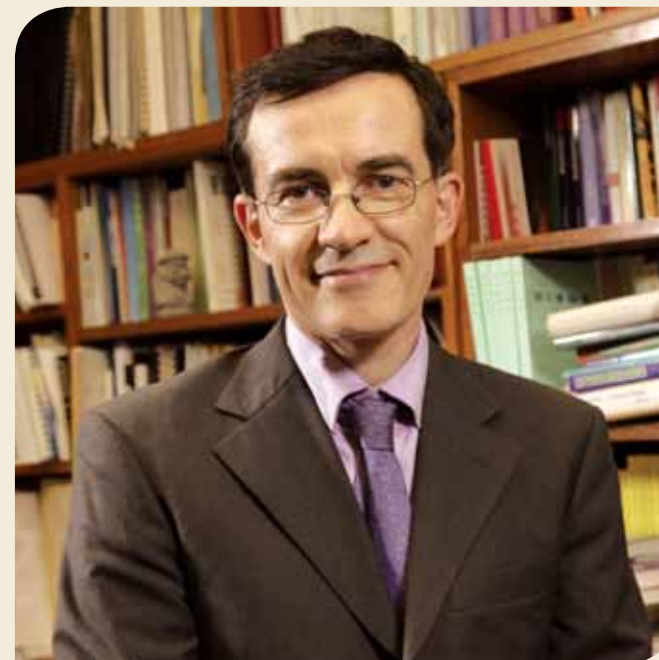
A lot of research is teamwork and Dr Pang counts herself "very lucky to have very good students and very good research assistants to support my work. We as a team work together to come up with very good ideas and very good research."

She hopes that her research on CSCs will help improve the diagnosis and management of cancer patients, and may contribute to efforts to ultimately conquer cancer.

Award Presentation Ceremony for
**Excellence in
Teaching & Research
2011**

Outstanding Research Student Supervisor Award

Supervisors who guide their students to research excellence receive \$25,000 to further their research and a Type B research postgraduate studentship.



Professor Paul Yip Siu-fai

Department of Social Work and Social Administration

While Hong Kong is renowned for its devotion to economic development and maintaining high GDP growth, Professor Yip believes that too often human development is neglected. "It is time to ensure the gains from economic development benefit the whole community," he says. "Our job is to find a research gap so we can make a difference to our community and make a better world."

Over the years much of his research has been into solving social problems and suicide prevention, areas you might expect students to shy away from. Yet, armed with a strong passion for the community and fine analytical skills, Professor Yip successfully attracts students to join him in his many research projects.

He feels that a supervisor's job is to hold the keys to open up new ideas for students and spark in them an enthusiasm for undertaking research.

Professor Yip maintains that all students are different: "It is not a case of one size fits all. We need to bring out the best in each of them so they can develop into independent researchers who will be a benefit to the community."

Current PhD student Zhang Yi welcomes Professor Yip's individual approach to students, saying: "He gave me space to explore the research and the social issues myself."



Dr Stephen James Matthews

School of Humanities (Linguistics)

It has been said that music is a language. Dr Matthews, a violinist, has adapted that analogy to his work with students. "Supervising students is actually like playing second violin. You're playing the supporting role and trying to get the best out of each student according to their talents and interests," he says.

Dr Matthews encourages his students to pursue unexplored topics and keeps an open door so they feel welcome to use his resources and discuss their research ideas at any time.

The discussions can be wide-ranging and one student, Elaine, who graduated with an MPhil in 2006, found this very helpful in developing her thesis.

"We always talked about music in our lives and meaning, and that led me to think about the relationship between music and language. I'm really thankful for these discussions because they helped me in writing my paper on Cantonese lyrics and music," she says.

Dr Matthews also extends his advice beyond academic work, to encourage students when they are struggling. "Students often want to give up for different reasons but so far I've always managed to persuade them not to give up, that they can do it," he says.

Research Output Prize

Each faculty is eligible for one Research Output Prize, which honours research published or created in the preceding calendar year. The recipients, who can work in teams or individually, receive \$120,000 to further their research.

Architecture

An innovative architectural design, the 'Baishawan Beach and Visitor's Center in Taipei, Taiwan', set an example for sustainability in design and the integration of architecture and landscape. Designed by HKU's Mr Wang Wei-jen, the centre provides quality public spaces that interact with the natural setting and can be achieved in a low-cost sustainable way. The project was featured in *Taiwan Architecture* 2010.

Arts

In *Mao's Great Famine: The History of China's Most Devastating Catastrophe, 1958–62*, Professor Frank Dikötter pieces together the full dimensions of China's disastrous famine and the political decisions that led to it. Using archival material never before published outside China, he delves into the lives of ordinary people living with the radical collectivism of Mao's Great Leap Forward. The book, published by Bloomsbury in London and Walker & Co in New York, has received media attention across the globe and won the 2011 Samuel Johnson Prize for Non-Fiction.

Business and Economics

Developing core capabilities, such as technological capability, has long been viewed as vital for firms seeking to achieve sustainable competitive advantage. However, this paper, 'Technological Capability, Strategic Flexibility and Product Innovation', takes the unique approach of examining the potential dark side of technological capability, namely that it may actually stifle a firm's innovative drive. Through their work, published in the *Strategic Management Journal*, authors Dr Kevin Zhou Zheng of HKU and Dr Wu Fang of the University of Texas at Austin sought to resolve the capability-rigidity paradox.

Dentistry

'Proteomics of Drug Resistance in *Candida Glabrata* Biofilms' is the first study to investigate the molecular mechanisms by which the common mouth fungus, *Candida Glabrata*, often causes fatal infections in people with weakened immune systems. Researchers from HKU's Faculty of Dentistry and Nihon University in Japan show that biofilms are much more drug- and chemical-resistant than free-floating cells and identified a possible novel mechanism of antifungal resistance which could open new research directions. The paper was published in *Proteomics*.

Education

Dr David Carliss's book, *From Testing to Productive Student Learning: Implementing Formative Assessment in Confucian-Heritage Settings*, scrutinises the relationship between assessment and student learning, with specific emphasis on the role of socio-cultural context in affecting the interplay between schooling and examinations. The book, published by Routledge, won recognition as an exceptional item of research by Professor Paul Black of King's College London, the originator of the 'Assessment for Learning' research area.

Engineering

An international project to push the frontier towards achieving an ultraviolet vertical cavity surface-emitting laser resulted in a front cover feature in *Applied Physics Letters*. The project included scholars from the UK and Singapore as well as Dr Hui Kun-nam and Dr Choi Hoi-wai from HKU. The paper was titled 'Optically Pumped Ultraviolet Lasing from Nitride Nanopillars at Room Temperature'.

Law

Employment Law and Practice in Hong Kong is the first stand-alone comprehensive work on

employment law in Hong Kong, and a valuable resource for judges, practitioners, professionals and academics in the field. Authors Mr Rick Glofcheski and Ms Farzana Aslam cover such work-related issues as employment contracts, health and safety, privacy, discrimination, cross-border employment and trade unions.

Medicine

Intimate partner violence is a serious global public health problem with high morbidity and mortality. Research led by Professor Agnes Tiwari has informed upcoming World Health Organization guidelines on the health sector's response to violence against women. 'Effect of an Advocacy Intervention on Mental Health in Chinese Women Survivors of Intimate Partner Violence: A Randomized Controlled Trial' was published in the *Journal of the American Medical Association*.

Science

Professor Zang Wenan of Mathematics worked with two former students, Dr Chen Xujin and Dr Chen Zhibin, to produce a paper that takes a novel look at box-Mengerian hypergraphs, which have been studied extensively in the field of operations research. Their paper, 'A Unified Approach to Box-Mengerian Hypergraphs', was published in *Mathematics of Operations Research*.

Social Sciences

An investigation into the new political identity in Macau provides an innovative perspective for analysing transitional politics and governance. The work by Dr Lam Wai-man shows the importance of cultural, social and economic identities in consolidating political legitimacy in a post-colonial system. 'Promoting Hybridity: The Politics of the New Macau Identity' was published in *The China Quarterly*.



Honouring Exceptional Achievements

The 186th Congregation in March conferred honorary degrees to four individuals in recognition of their distinguished service and commitment to academia and society. They included Burmese pro-democracy leader Aung San Suu Kyi (in absentia), medical researcher and university administrator Professor Sir Leszek Krzysztof Borysiewicz (second from the left), and botanist Professor Xu Zhihong (second from the right). Dr John Craig Venter (third from the left), the fourth recipient, presented a public lecture at HKU on genomic research before the ceremony, where the honorary degrees were conferred by HKU's Pro-Chancellor, Dr the Honourable David Li Kwok-po (third from the right).



Aung San Suu Kyi, in absentia, presented a video message at Loke Yew Hall upon accepting the honorary degree.



Aung San Suu Kyi

Doctor of Laws honoris causa

Burma's pro-democracy leader and Nobel Peace laureate, Aung San Suu Kyi, is honoured for her commitment to non-violent struggle for democracy and human rights.

Daw Suu, as she is respectfully addressed by her compatriots, led a pro-democracy movement in Burma and was placed under house arrest in 1989, the year before her party won a general election by a landslide. The party was not allowed to take power and the military regime brutally suppressed her supporters. Daw Suu spent 15 of the next 20 years under house arrest, much of that time separated from her family, and was finally released in 2010.

She remained committed to her beliefs and in April led her party to a sweeping victory in by-elections, the first time the party had joined the political process since 1990.

She addressed the HKU Honorary Degrees Congregation in a videotaped speech, saying the awarding of the Doctor of Laws had particular meaning to her. "Only with a strong, independent, honest judiciary, and a strong, independent legislature that truly reflects the will of the people, will we be able to look on laws as a protective body for our people."

This was Daw Suu's second time addressing an HKU audience after a Skype dialogue last year for the Centenary Distinguished Lecture series. She said if she is able to leave Burma, "I would so wish to visit your University and to thank you personally for all that you have done for me and for our cause over the years."

Professor Sir Leszek Krzysztof Borysiewicz

Doctor of Science honoris causa

Sir Leszek is an exceptional man who has made his mark as a physician, a distinguished medical researcher and a university administrator – multiple achievements that reflect his stated philosophy to seize life's many opportunities and not be deflected by its tribulations.

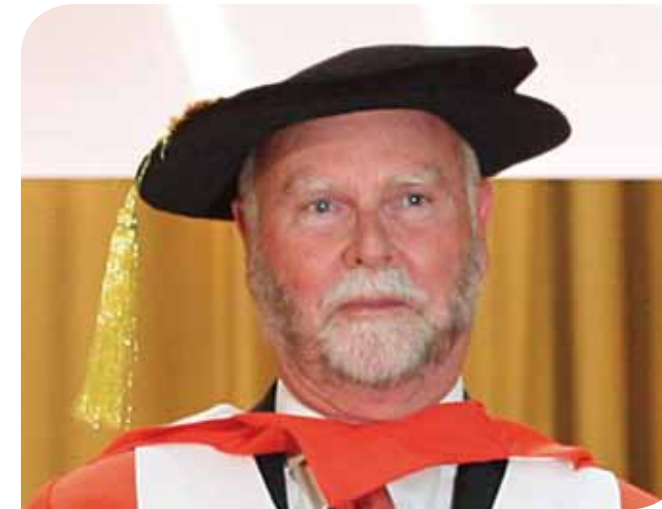
He is now the 345th Vice-Chancellor of the University of Cambridge, prior to which he was Chief Executive of the UK's Medical Research Council, the national body that supports medical science.

Born in Wales to Polish parents, he was brought up in Cardiff and enrolled at the Welsh National School of Medicine (now part of Cardiff Medical School). He received his doctorate from the Royal Postgraduate Medical School in London, where his passion for research into immunology first emerged.

After a first stint at Cambridge in 1988, Sir Leszek returned to his home town to be Professor of Medicine at the University of Wales, where he led a research team that carried out pioneering work on vaccines, in particular conducting clinical trials for a therapeutic vaccine for human papillomavirus (a cause of cervical cancer).

He was knighted in 2001 for services to medical research and education. While at Imperial College London in 2001–07, first as Principal of Medicine then as Deputy Rector, he was responsible for the development of interdisciplinary research between engineering, physical sciences and biomedicine.

Sir Leszek strongly believes that the purpose of universities is to serve society: "In economic hard times who will look to the long term? Governments will not; stock markets cannot; businesses dare not. Universities are enabled by our autonomy from outside pressures to discharge this responsibility."



Dr John Craig Venter

Doctor of Science honoris causa

Dr Craig Venter is a bold scientist who has made several remarkable and ground-breaking discoveries in genomic research. *Nature* magazine has described him as 'maverick, publicity hound, risk-taker, brash, controversial, genius, manic, rebellious, visionary, arrogant, feisty, determined and provocative'.

Those qualities led Dr Venter to an early discovery, Expressed Sequence Tags, that was born out of frustration over slow and time-consuming gene identification. He founded The Institute for Genomic Research in 1992 and with his team developed the whole genome shotgun sequencing technique. They decoded the first genome of a free-living organism, *Haemophilus Influenzae*, a bacterium that causes meningitis.

In 1998 he founded Celera Genomics to sequence the human genome. He and his team achieved their goal using DNA from five individuals, including Dr Venter (who, it turns out, has a genetic predisposition to antisocial behaviour). This was despite scepticism from many scientists who thought their method was not as good as that used by the separate Human Genome Project. In 2000 US President Bill Clinton declared the two teams had tied in the race to map the human genome.

Dr Venter has since blazed new trails, such as creating the first self-replicating bacterial cell constructed entirely with synthetic DNA.

Professor Michael Wilkinson, HKU's Public Orator, declared: "Craig has been responsible for extending the boundaries of known science. In particular his novel conceptual approach to deciphering the human genome and in creating synthetic life make him stand apart from other scientists. The maverick wizard is in truth a giant."

Professor Xu Zhihong

Doctor of Science honoris causa

A respected botanist who has dedicated his life to research into plant development and plant biotechnology, Professor Xu is also renowned as a prominent university administrator whose forthright ideas on education have sometime sparked controversy.

He developed his love for plants while still at junior secondary school in Wuxi, Jiangsu Province, where he conducted his first tests on sprouting seeds. After studying botany at Peking University and graduate studies at Shanghai Institute of Plant Physiology (SIPPs), he began research into improving food production by regulating plant growth.

As a visiting scholar in the UK between 1979 and 1981, Professor Xu made significant discoveries to improve the biotechniques for growing barley and grain legumes. Returning to China, Professor Xu concentrated on finding new biotechnological methods of improving crop production. He studied plant cell regeneration in protoplast cultures and worked on maximising plant generation in protoplasts in crops such as soybeans, peanuts and cowpeas, helping pave the way for the genetic modification of these crops.

Between 1999 and 2008, Professor Xu was President of Peking University. He stirred up heated debate in China with his calls for less bureaucracy in university administration, less emphasis on university rankings and less emphasis on examinations. He advocates "giving time back to students... to develop in an all-round way".

Having retired from administration, Professor Xu has returned and his laboratory at Peking University now focuses on molecular mechanism of sex determination of cucumber and the early development of microspore in rice.

His work on plant development and biotechnology of important food crops has benefited not only China but also the world. ■





Teachers Learn, too, in the Common Core

HKU's innovative Common Core Curriculum has received much positive feedback from students. But what do teachers think about this new approach to teaching and learning?



Dr Eric Chui in his class of 'Youth in a Global World'

The Common Core Curriculum aims to get undergraduate students to step beyond their disciplinary studies and consider issues of importance to contemporary society, such as the impact of technology, sexual diversity, China's growing power, and climate change. But students are not the only ones who are being challenged to think differently.

Teachers are required to push their own boundaries by developing materials and forms of assessment that are accessible to students from unrelated disciplines and applicable in large classes.

Dr Eric Chui, Associate Professor of Social Work, who teaches 'Youth in a Global World' which examines how globalisation affects youth, how young people can have an impact in a changing world, and the meaning of global citizenship, says the task was initially challenging.

His usual teaching load involves training social workers according to the prescriptive requirements of the profession, but this didn't fit with the broader demands of the Common Core and a class of nearly 100 students.

"I've had to go beyond my comfort zone to teach students from different backgrounds, but it's been a really good experience in terms of my reflections on my teaching," he says. "Previously I taught in a very didactic way – traditional lecture and tutorial. However, the Common Core from the very beginning allows us to think creatively and pay more attention to students' active learning."

Making it accessible

Students from non-social science backgrounds struggle at first with the theories that underpin his teaching. However, they soon begin to see their application in such things as the impacts of globalisation on Chinese hip hop music, the phenomenon of Lan Kwai Fong and the promotion of citizenship education in Hong Kong schools.

"One engineering student said he had never come across a course like this and it gave him breathing space to think about what he really wants," Dr Chui says.

Dr Michael Adorjan, Assistant Professor of Sociology, who teaches 'Cybersocieties: Understanding Technology as Global Change', similarly underpins his course with theory and peer-reviewed research.

"It's fair to say that students from the natural sciences found sociological theories more challenging at the beginning of the year, but everybody was on board by midway through. And the students from natural science backgrounds, having absorbed and thought through the theories, took a lot away from the course."

"Part of the challenge in teaching Common Core courses is that you have to be aware of your audience and be accessible while also being rigorous in theory and example. By the end they were using the theory to critique the course itself. I found that really delightful."

Feeding back

Students also have input to the course content. Dr Adorjan asks students to find YouTube clips and discuss them in the context of what they learned in class in their reflective journals. Some of these examples then become raw material for class discussion on such things as online identity. For example, students found clips of teenage girls giving tours of their bedrooms, something Dr Adorjan says he would not have found on his own.

His experience with the Common Core is feeding back to his other teaching in criminology, where he now plans to introduce at least one lecture on cyber crime. He is also investigating how to

incorporate the experiences of students in his Common Core course into his research.

This synergy between the Common Core and other academic activities is one of the hoped-for goals of the new curriculum. The Director of the Common Core Curriculum, Gwyn Edwards, says the feedback from both students and teachers has been generally very positive.

In student evaluations of the courses, "Certain terms creep up again and again – 'I understand other cultures better', 'I see thinking from different perspectives', 'It's opened my mind'. These are some of the aims of the Common Core," he says.

A flagship course

Students also report enjoying the tutorials that are required of the Common Core and the variety of learning experiences, such as field trips, guest speakers, reflective journals, making videos and doing group presentations. But the workload is a concern and teachers such as Dr Chui have adjusted their expectations of students – and of the Common Core.

"I was reluctant to do a Common Core course at first and it was a lot of hard work," he says. "But now, it is a flagship course for me. It's a golden opportunity to influence young people other than social workers on how they can make a difference."

"I know it's a large class but it is easier to teach because there is more interaction. I'm going to enjoy myself in every moment of this course." ■



Dr Michael Adorjan giving comments on students' YouTube group presentation

Living Language

How are new languages created when people from different ethnicities interact? A new study shows that a variety of social and structural dynamics underlie this fascinating phenomenon.

American poet Ralph Waldo Emerson once said “Language is a city to the building of which every human being brought a stone.” It’s an oddly clumsy phrase from a man of letters, but its sentiment aptly reflects the findings in *Contact Languages: Ecology and Evolution in Asia* that argues language is inherently creative and explores how new languages and hybrid languages evolve.

Written by HKU Associate Professor in Linguistics Dr Umberto Ansaldò, the book examines contact languages – that is, languages which are created as a result of people of different ethnic backgrounds coming together when there is no particular political reason nor intervention from some higher authority to say which language should be dominant.

“Contact languages emerge through different ethnicities’ accommodation to each other,” says Dr Ansaldò. “The book looks into the social and grammatical dynamics that underline this process, concentrating particularly on new or restructured languages in Monsoon Asia, the Malaysian Indonesian region and Southern China.”

He examines the socio-historical conditions that trigger the creation of a new language, as well as the factors that determine the grammatical outcome. “For example, Western colonial powers shipped Indonesian and Malay people to Sri Lanka as soldiers, servants and political exiles. There they interacted with the indigenous population and mixed elements of their respective languages to create a new variety of Malay,” he says.

Language variation

He first experienced the marvel of ‘variation’ in language as a second year student of Mandarin Chinese when he came to Hong Kong and encountered Cantonese and then to Penang where he heard Minnan (or Hokkien) spoken. He says in the book: “I had expected to find other Sinitic languages to be somewhat similar to the Mandarin I had learnt but I was instead struck by completely different grammatical systems; the Sinitic varieties were not mutually intelligible, which rendered the application of the label ‘dialects’ completely useless in their case.”

Which leads to the big question: When is a language a language and when is it just a dialect? Says Dr Ansaldò, “From a linguistic point of view we talk of varieties: a language has a standardised form and some kind of political recognition, while dialects don’t.”

Chinese Coast Pidgin

Some contact languages are incomplete and come about because the protagonists need to communicate only to a limited degree. In the 19th century, a Chinese Coast Pidgin English was developed by traders along the south China coast and Canton region. “This language was created when the British were predominantly trading in the region, and some other countries were starting to get in on the action,” says Dr Ansaldò. “A form of English became the Lingua Franca and was used as the means of communication

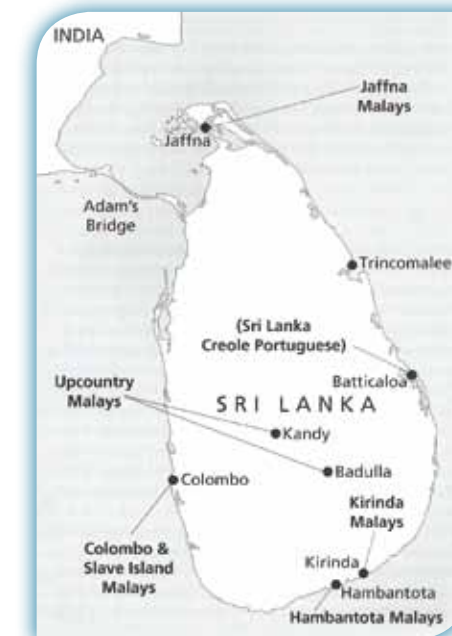
between the British and the Chinese, between the Chinese and traders from other foreign countries, and between the British and traders from other foreign countries.”

“But it was only ever used in a form related to trade. So what arose was a language confined to trading terms – numbers and currency, weights and measures and legalese. It was never a fully-fledged language, but it was used extensively.”

He has been collating research into contact languages in the Asian region since 2003. He used linguistic data, transcriptions of language samples and oral histories, as well as investigating the social processes that led to language creation.

His findings include substantial evidence that Contact Language Formation is the natural – though not necessary – outcome of population admixture in shifting socio-historical contexts and that multilingualism and/or casual transmission support innovative use of language.

“All languages change,” he says. “The young don’t want to talk like the old, the rich don’t want to talk like the poor. But what is



Malay communities in Sri Lanka

interesting is when changes amount to an entirely new (or restructured) language, i.e. the process of language creation, as well as the phenomenon of language death.” ■



Contact Malay varieties and their main locations in the Malay-Indonesian archipelago



Teaching, Transparency and Tottenham Hotspur

New Dean of Education, Professor Steve Andrews, has assumed the role at a transitional time, but he believes the way to sail smoothly through the reform period is via collective decision-making and teamwork.

Taking up the reins of the Faculty of Education at such a transitional time is a difficult task in anyone's book. The curriculum is about to move from three years to four, the Faculty is seeking to implement changes recommended in the 2009–10 Faculty Review, and it is getting ready to move buildings.

Sensibly, Professor Steve Andrews, who became Dean of Education in December 2011, believes it is not a one-man job, but should be a team effort. Before he took up the role of Interim

Dean after the sudden and untimely death of Shirley Grundy, he was careful to ensure he had the support of his colleagues.

"Deans come via different routes," he says. "External appointments can be good as they bring new ideas and are catalysts for change, but they face the challenge of learning the culture and politics within the Faculty and the University. I think after the shock of Shirley's sudden death, there were advantages to having someone from within."

“One of my missions as Dean is to enhance recognition locally, regionally and internationally of our research excellence in education, communication sciences and information sciences.”

Professor Steve Andrews

"I believe in collective decision-making, I want everything to be transparent. My management philosophy is to be highly consultative – we now have six associate deans and four assistant deans, and we are consulting students, advisory boards, the Education Bureau, while we map out our strategic plan for the next 10 years."

And he includes administrative staff in that process: "I try to have no division between academic staff and admin staff – our admin and support staff make a tremendous contribution to the Faculty."

Professor Andrews acknowledges that it's an exciting time to be involved in education in Hong Kong – first with the changes to the school curriculum and now the undergraduate curriculum. As part of the reform, the Education Faculty is introducing four new double degrees, in collaboration with three partner faculties.

Diversity in research impact

"Our Faculty is extremely diverse. Diversity is a characteristic of educational research, but our diversity extends beyond education because of our expertise in information and technology studies and also in speech and hearing sciences."

"One of my missions as Dean is to enhance recognition locally, regionally and internationally of our research excellence in education, communication sciences and information sciences."

He is careful to point out that the impact of the Faculty's research takes different forms. "There is the impact on education policy, and on educational practice, which filters down to the classroom. Then there's the impact on individuals – to take just one example, research in communication sciences makes a real difference to the lives of individual children and adults with speech and hearing impairments, including the elderly and stroke victims."

Within the area of education, the Faculty's research is extremely wide-ranging. It spans the age range from early childhood education to higher education. It explores issues which are of relevance locally, regionally and internationally. It focuses on diversity of many different kinds: ethnic minority issues both in Hong Kong and in China, and sexual diversity, as well as the challenges facing teachers who work with increasingly diverse classes of students.

One new research area is 'shadow education' or education that happens outside the formal education setting, such as private tutoring. "This is an important area," says Professor Andrews. "It seems shadow education may have a far stronger impact than anyone realised."

"We have major involvement as the Hong Kong partner in international research studies, such as PIRLS, TIMSS, and PISA, and of course we're also heavily engaged in Research relating to local education," he continues. "This covers a wide range of subject-specific issues – in Chinese, for instance, colleagues investigate everything from initial literacy skills to the place of Cantonese opera in the school curriculum – as well as areas that cut across all subjects, such as Assessment for Learning, and Language across the curriculum. We also have a strong Information and Technology Studies division, and we are engaged in cutting-edge

e-learning initiatives, both in schools and within the University. In short, the breadth of our Research is very wide."

International career

Professor Andrews' career has taken him around the world and has involved extensive stints in development work. "Before coming to Hong Kong, I had worked in various countries – France, Germany, Switzerland, Mexico, Egypt, Sudan and Thailand, plus at the universities of Reading and Cambridge."

The Education Faculty is already very well connected internationally, having active research collaborations with a variety of institutions in the region and across the world. Another of Professor Andrews' goals as Dean is to make these collaborations a more integral part of Faculty activity in fulfilment of its mission, rather than allowing them to be primarily associated with individuals.

"We plan to achieve this in a variety of ways," he says, "including through initiatives under the umbrella of the UNESCO Chair in Comparative Education to be conferred in May this year."

Examples of Faculty-level partnerships include collaboration with the University of Gothenburg (which embraces Research and Teaching & Learning) and the MEd in Teaching Chinese Language, offered in Singapore in collaboration with the Singapore Centre for Chinese Language.

"However," cautions Professor Andrews, "while I am very keen to extend the Faculty's international engagement, I also want to ensure that we don't lose sight of the importance of our engagement with local professional communities, which is also absolutely central to our mission."

Family ties to Hong Kong

Hong Kong was always on the cards for Professor Andrews and his wife, Veronica, as

there is a family connection: His parents-in-law met and married here just before WWII.

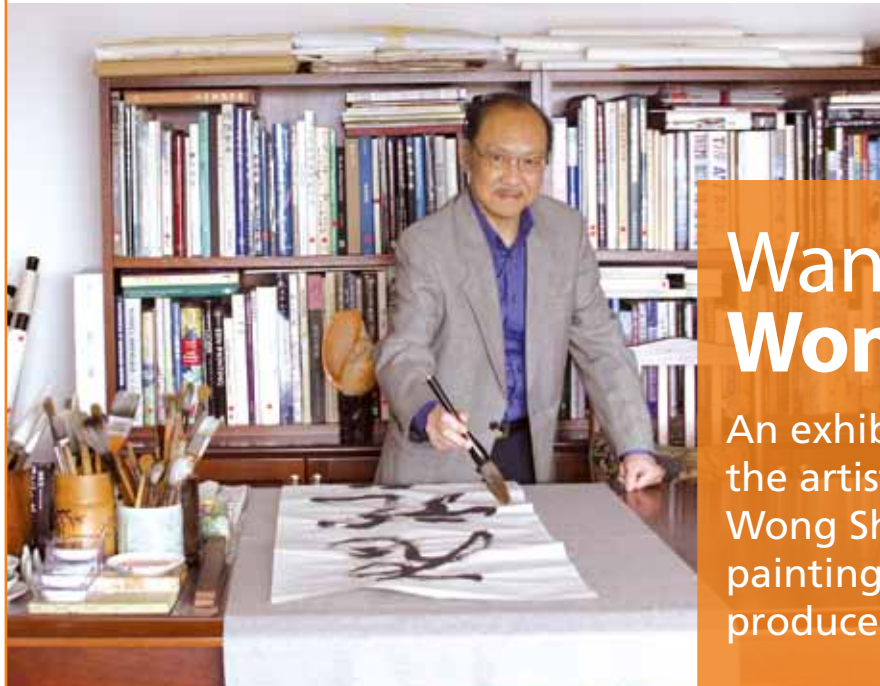
"I arrived in Hong Kong in September 1990 and intended to stay four years!" he says. "But this is an exciting place to live, and professionally it's very stimulating. I joined the Faculty 21 years ago, at exactly the same time as PVC Professor Amy Tsui, with both of us working in the same area: English language education."

Outside of HKU, Professor Andrews has been married for 37 years and has four children, two boys, two girls. "Our elder daughter recently gave birth to our first grandchild, now six months old, and she is the apple of her grandfather's eye!"

His hobbies include jogging, listening to jazz and French chanson, and watching soccer: "I confess to spending too much time – not that deans have much spare time – following the fortunes of Tottenham Hotspur Football Club." ■



Professor Steve Andrews and his granddaughter Imogen



Professor Wong Shiu-hon

Wandering in the Wonderland

An exhibition that takes us through the artistic journey of Professor Wong Shiu-hon, showcasing paintings and calligraphy works he produced after his early retirement.

Professor Wong Shiu-hon, a former Professor of the Department of Chinese (now School of Chinese), is currently an Honorary Fellow of the Jao Tsung-I Petite Ecole and was a pupil of Professor Lo Hong-lit and Professor Jao Tsung-I.

He is renowned for his research in Guangdong painting and poetry, but his own paintings and calligraphy are not as well known as they could be, largely because of Professor Wong's own modesty and reluctance to display them. This could change with an exhibition of the Professor's works at the Jao Tsung-I Petite Ecole.

When they were young, he and his brother, Wong Shiu-hin, studied under Li Fenggong and Liang Boyu, and established a solid foundation in painting. The human figure paintings of his youth recall those of Li, and his blue and green landscape paintings capture Liang's style.

During his time at HKU, Professor Wong focused on his teaching duties and rarely painted. It was only with his early retirement and his move to Australia that he was able to start painting again. The collection is therefore largely composed of works produced during or after

the 1980s, and includes paintings of landscapes, flowers, birds, and human figures, as well as a range of different styles of calligraphy. ■

Exhibition of Paintings and Calligraphy by Professor Wong Shiu-hon runs at the Jao Tsung-I Petite Ecole until June 8, 2012.



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